

## JUMPERS AND STUFF

## CONNECTORS

REF	TYPE	DESCRIPTION	PAGE
CN1	DPSP	MOUSE / JOYSTICK 1	5
CN2	DPSP	MOUSE / JOYSTICK 2	5
CN3	RCA-J	RIGHT AUDIO OUTPUT	5
CN4	RCA-J	LEFT AUDIO OUTPUT	5
CN5	DB25S	EXTERNAL FD FLOPPY	8
CN6	DB25P	RS232 SERIAL PORT	7
CN7	DB25P	PARALLEL PORT	7
CN8	DB25P	VIDEO SUPPORT CONNECTOR	1
CN9	DB25P	VIDEO OUTPUT	6
CN10	RCA-J	COMPOSITE VIDEO	4
CN11	DL-34	INTERNAL FD FLOPPY SIGNA	1
CN12	SL-4	INTERNAL FLOPPY POWER	1
CN13	MEM-30	KEYBOARD MEMBRANE	19
CN14	SL-4	INTERNAL FLOPPY POWER	19
CN15	MEM-30	KEYBOARD MEMBRANE	19
CN16	SL-4	KEYBOARD STATUS LED'S	19
CN17	PCMCIA-C	MEMORY CARD	11
P9	EDGE-BUS	MEMORY BUS EXPANSION	12

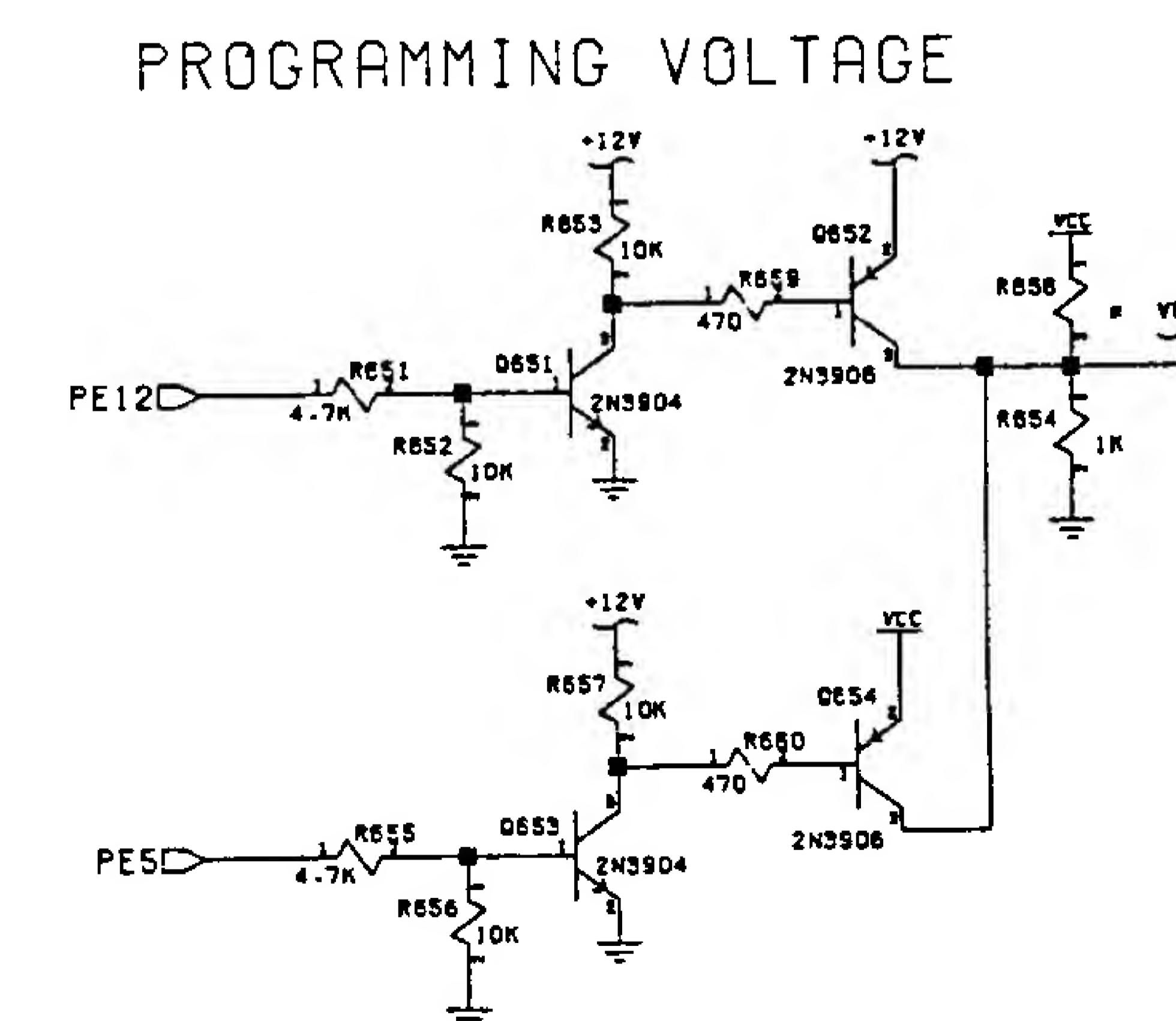
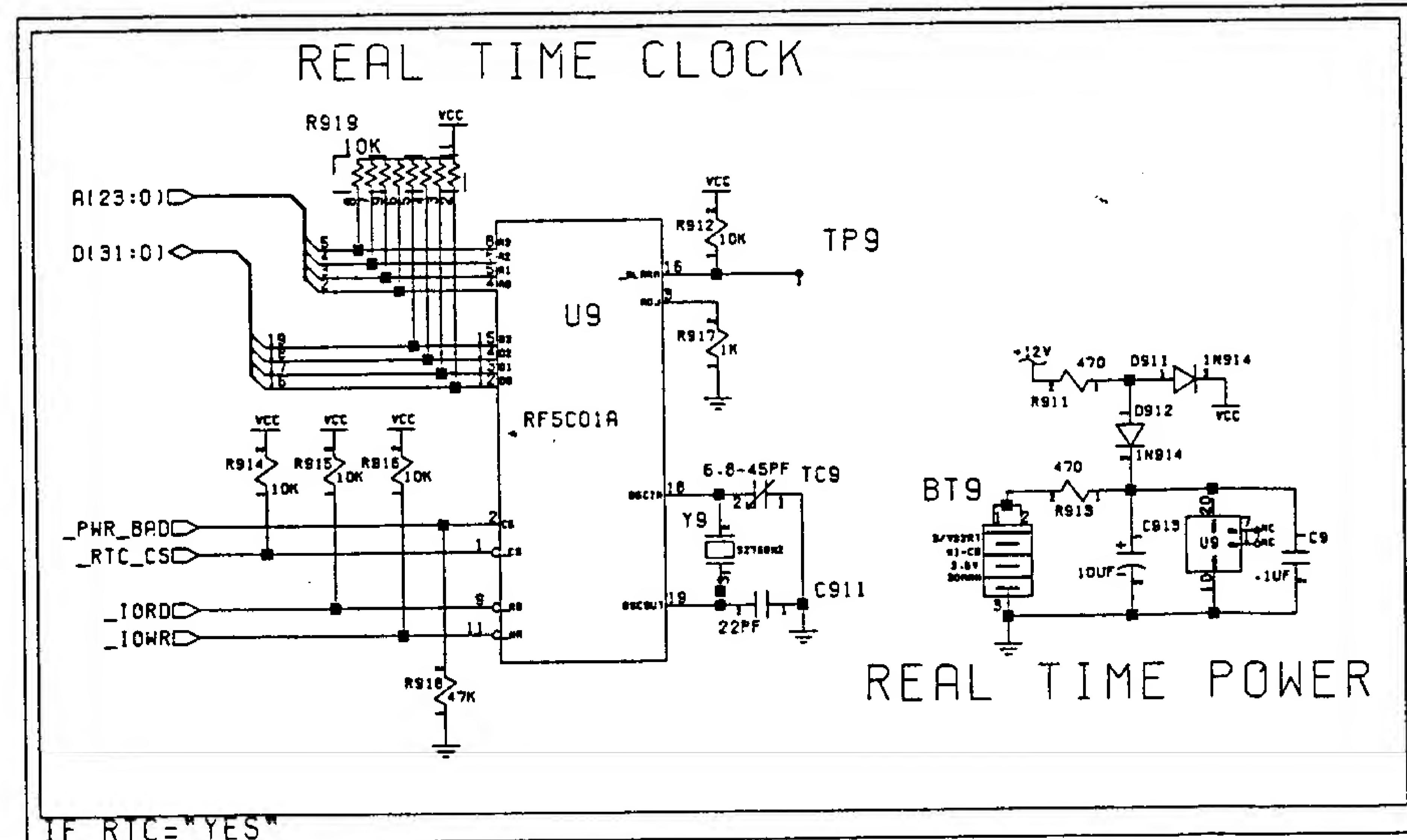
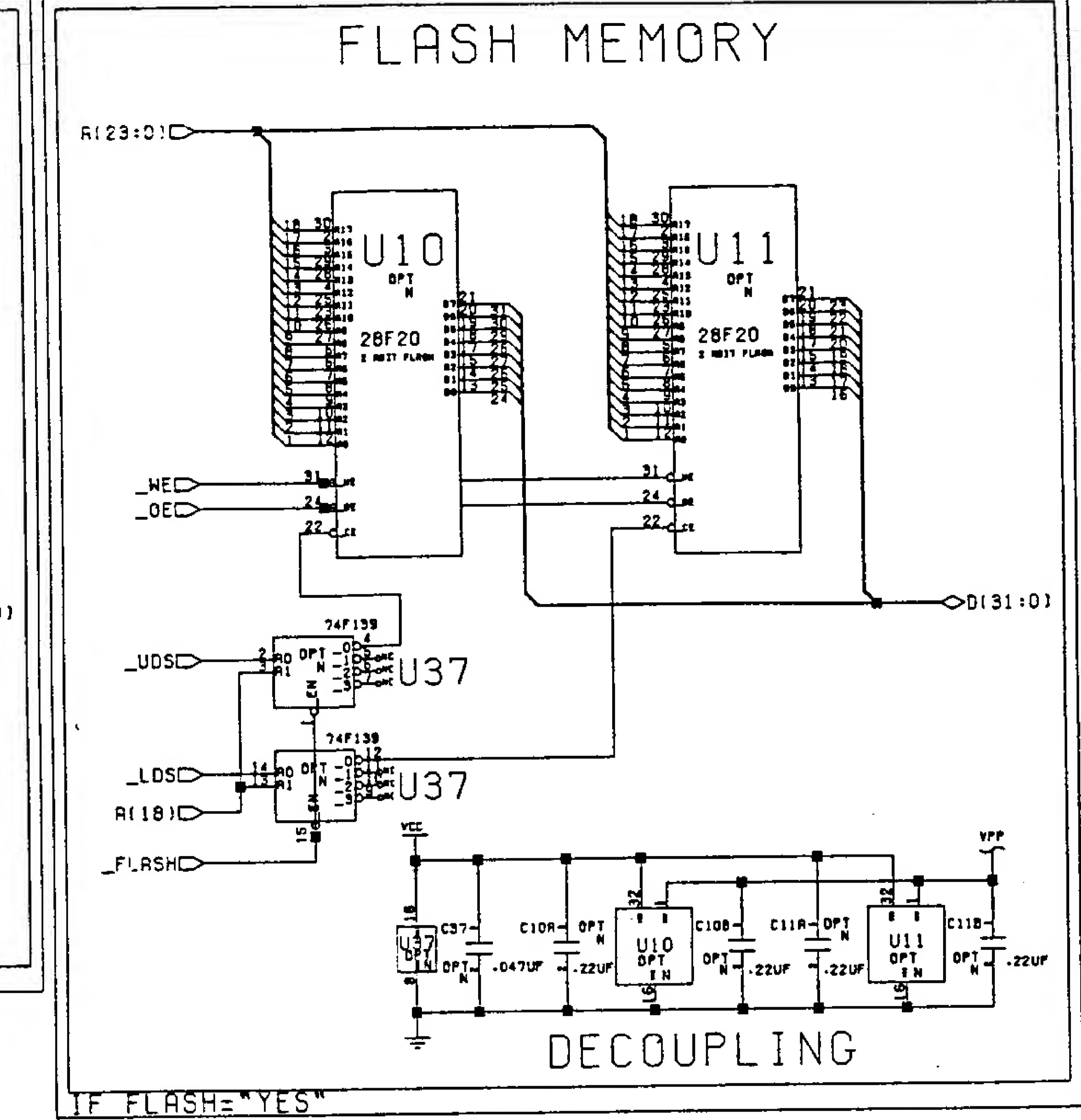
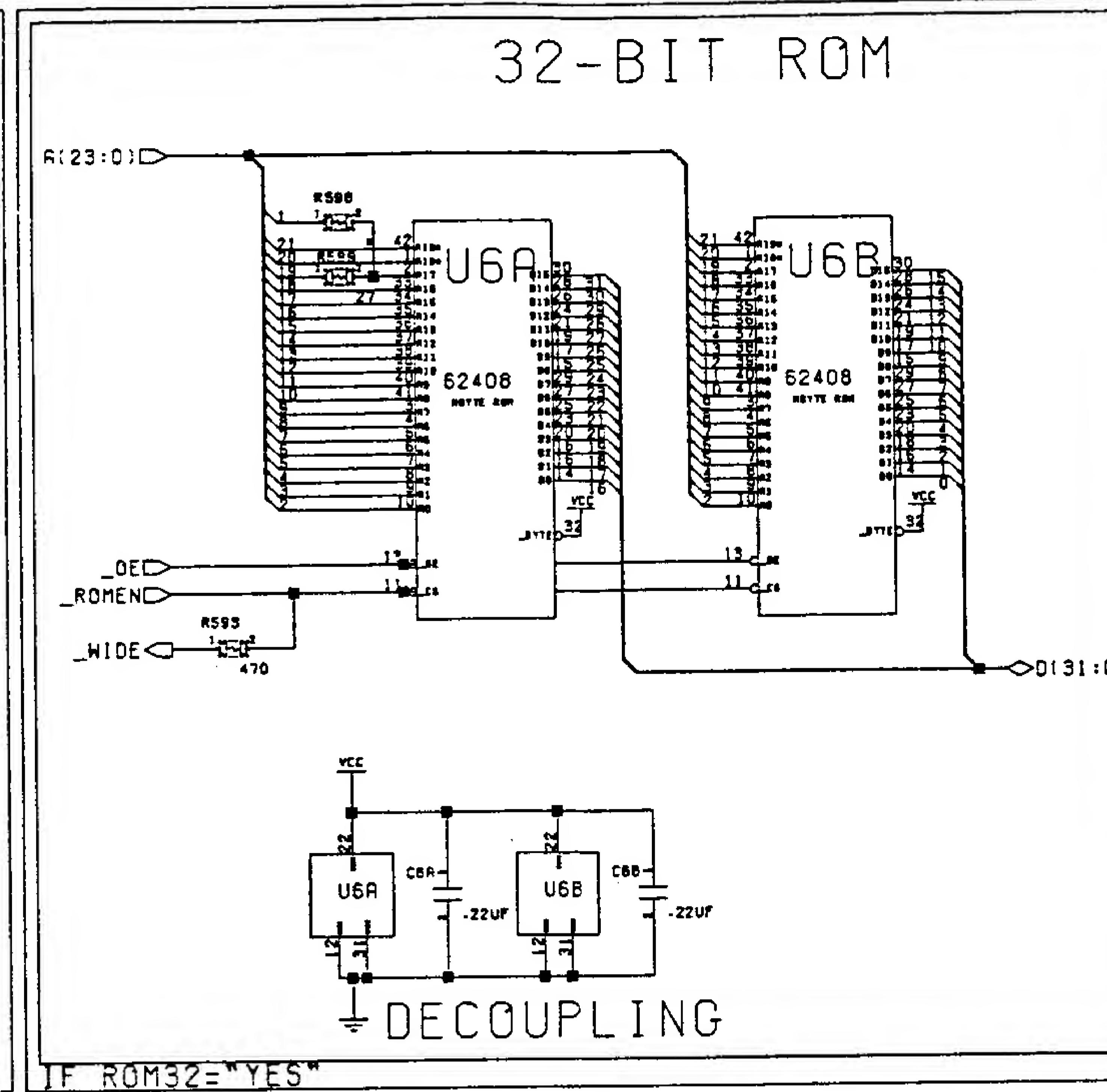
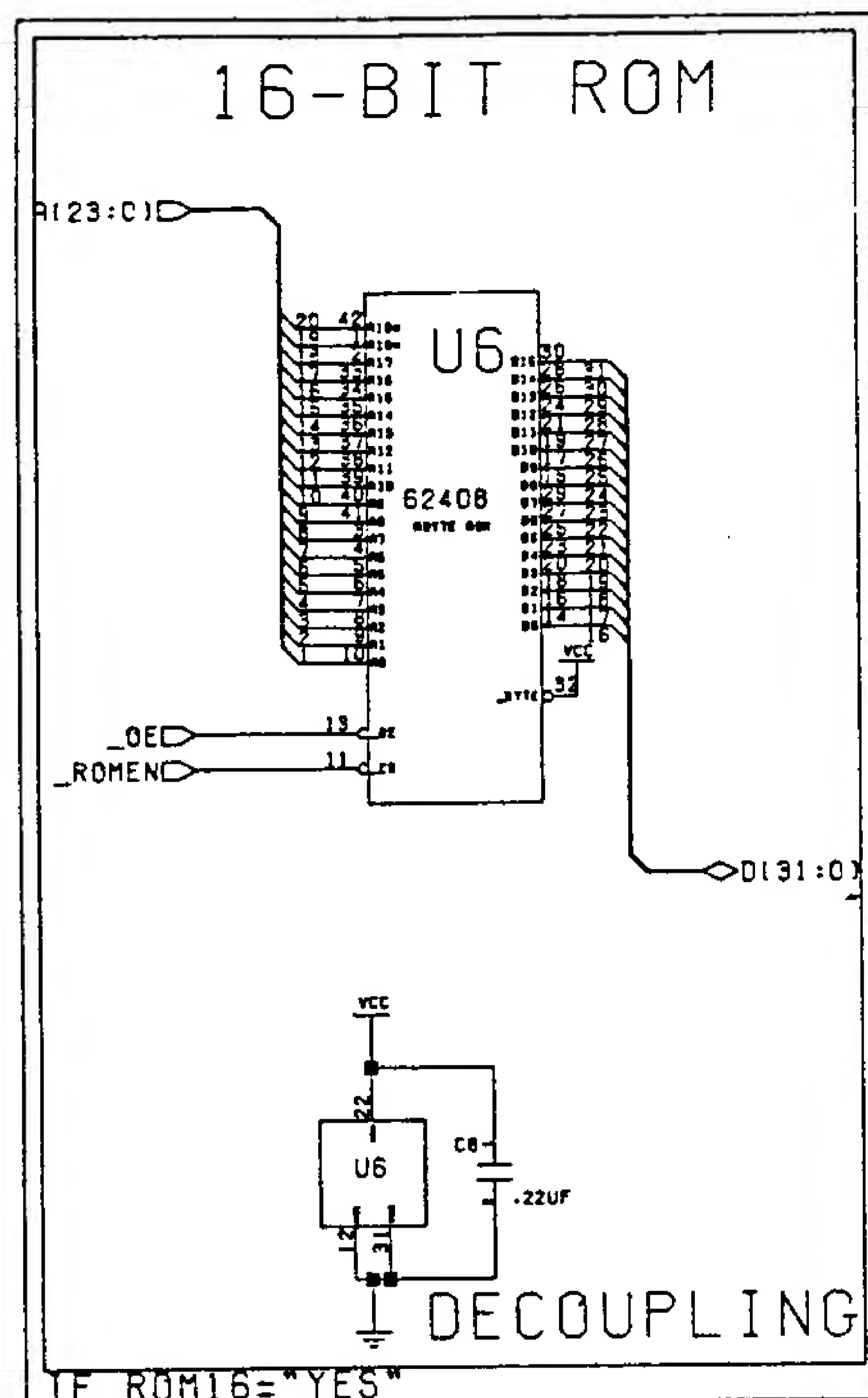
## SIGNAL GLOSSARY

SIGNAL	DESCRIPTION (AREA)	PAGES
25MHZ	25.63636 MHZ MASTER CLOCK	
7MHZ	7.15909 MHZ PROCESSOR CLOCK	
R232C:1	PARALLEL ADDRESS BUS (168000)	
R4K	DATA MEMORY REQUEST (PARALLEL PORT)	
RS	ADDRESS STROBE (168000)	
RUDIN	AUDIO INPUT (RS232 PORT)	
AUDOUT	AUDIO OUTPUT (RS232 JACK)	
BUFR	BUS ERROR (168000)	
BG	BUS GRANT (168000)	
BARCK	BUS REQUEST ACKNOWLEDGE (168000)	
BILSS	BLITTER SLOWDOWN (CHIPS)	
BLIZZ	CHIP MEMORY ACCESS (CHIPS)	
BR	BUS REQUEST (168000)	
BUSY	DEVICE BUSY (PBR91/EL1 PORT)	
CASL10	COLUMN ADDRESS STROBE (DRAM)	
CKK/LCKD	COLOR CLOCK / QUADRATURE (CHIPS)	
COAC	7.15909 MHZ QUADRATURE CLOCK (CHIPS)	
CHNG	MEDIA CHANGE (FLOPPY)	
CLKD/RW	READ/TIME CLOCK READ / WRITE (RTC)	
COMP	MONOCHROME COMPOSITE VIDEO (VIDEO)	
CSYNC	COMPOSITE SYNC (VIDEO)	
CTS	CLEAR TO SEND (RS232 PORT)	
DI15:0	PROCESSOR DATA BUS (168000)	
DIR	STEP DIRECTION (FLOPPY)	
DKRD	DISK READ DATA (FLOPPY)	
DKWR	DISK WRITE DATA (FLOPPY)	
DKRE	DISK WRITE ENABLE (FLOPPY)	
DKPL	DATA REQUEST LINE (CHIPS)	
DRAM16:0	DRAM ADDRESS BUS (DRAM)	
DRAM15:0	DRAM DATA BUS (DRAM)	
DRR	DATA SET READY (RS232 PORT)	
DTACK	DATA TRANSFER ACKNOWLEDGE (168000)	
DIR	DATA TERMINAL READY (RS232 PORT)	
E	PERIPHERAL ENABLE CLOCK (168000)	
EXTICK	EXPANSION PRESENT / RTC TICK	
FC12:0	FUNCTION CODE (168000)	
FIRE0/1	FIRE BUTTON 0/1 (JOYSTICKS)	
HLT	PROCESSOR HALT (168000)	
HSYNC	HORIZONTAL SYNC (VIDEO)	
INDEX	INDEX PULSE (F1 (FLOPPY))	
INT[2,3,6]	INTERRUPT REQUEST (CHIPS)	
IORESET	I/O RESET	
IPL[2:0]	INTERRUPT PRIORITY LEVEL (168000)	
KRCLOCK	KEYBOARD CLOCK (KEYBOARD)	
KRDATA	KEYBOARD DATA (KEYBOARD)	
KREREFET	KEYBOARD RESET (KEYBOARD)	
LDS/UOS	UPPER / LOWER DATA STROBES (168000)	
LED	POWER ON LED / BRIGHT FILTER (DISPLAY)	
LEFT/RIGHT	LEFT/RIGHT AUDIO (AUDIO)	

## REVISION HISTORY

## KEY COMPONENTS

REF	CM1P	DESCRIPTION	PAGE
U1	68000	65000 PROCESSOR 16MHZ	2
U2	8574	BLFIC (64K ROM)	3
U3	8364	PAULA	3
U4	4203	LISA (AIA DEMISE)	4
U5	F023A	ISA Gayle (CBM ASIC)	2,8,1
U5	ASST	ROM 512KX16 (NO NS)	10
U7-8	8520	AMIGA VIE 1 MHZ	10
U10-11	28100	FLASH MEMORY 128KX8	10
U12	CX9114	55MMV VIDEO ENCODER	14
U13	68HC05	AMIGA KEYBOARD MPU	19
U14	PS1510	LOW VOLTAGE SENSE IC	19
U15	LE347	BIOS OF-AMP	15
	TC404	BTCHOS OF-AMP	14
U16-17	8557	DRAM 256KX16, 80NS	15
U18-19	8557	DRAM 256KX16 OPTIONAL	15
U20	851777	BUDGIE ASYST	15
U28	1468	EIA LINE DRIVER	17
U29	1469	EIA LINE RECEIVER	17
V30	B101	TRIPLE E8111 VIDEO DAC4	
X1	OSC	111.28.65636 MHZ N151	12
	D5C	111.28.37512 MHZ PAL	12,17
Y451	XTR1	4.43915MHZ PAL BURST	14
Y521	XTR1	3MHZ CERAMIC RESONATOR	15,19
X2	ASST	PAL VIDEO MODULATOR	14
	ASST	NTSC VIDEO MODULATOR	14



## OPTIONAL REAL-TIME CLOCK/CALENDAR

A1200 REV 1 -> 1D PCB

**Figure 5-5. AA-GAYLE**

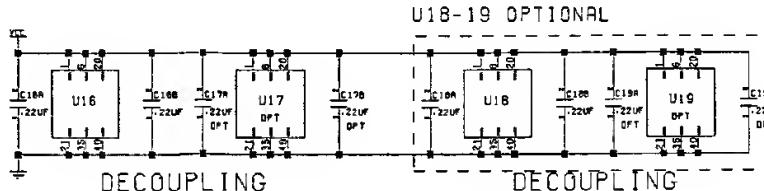
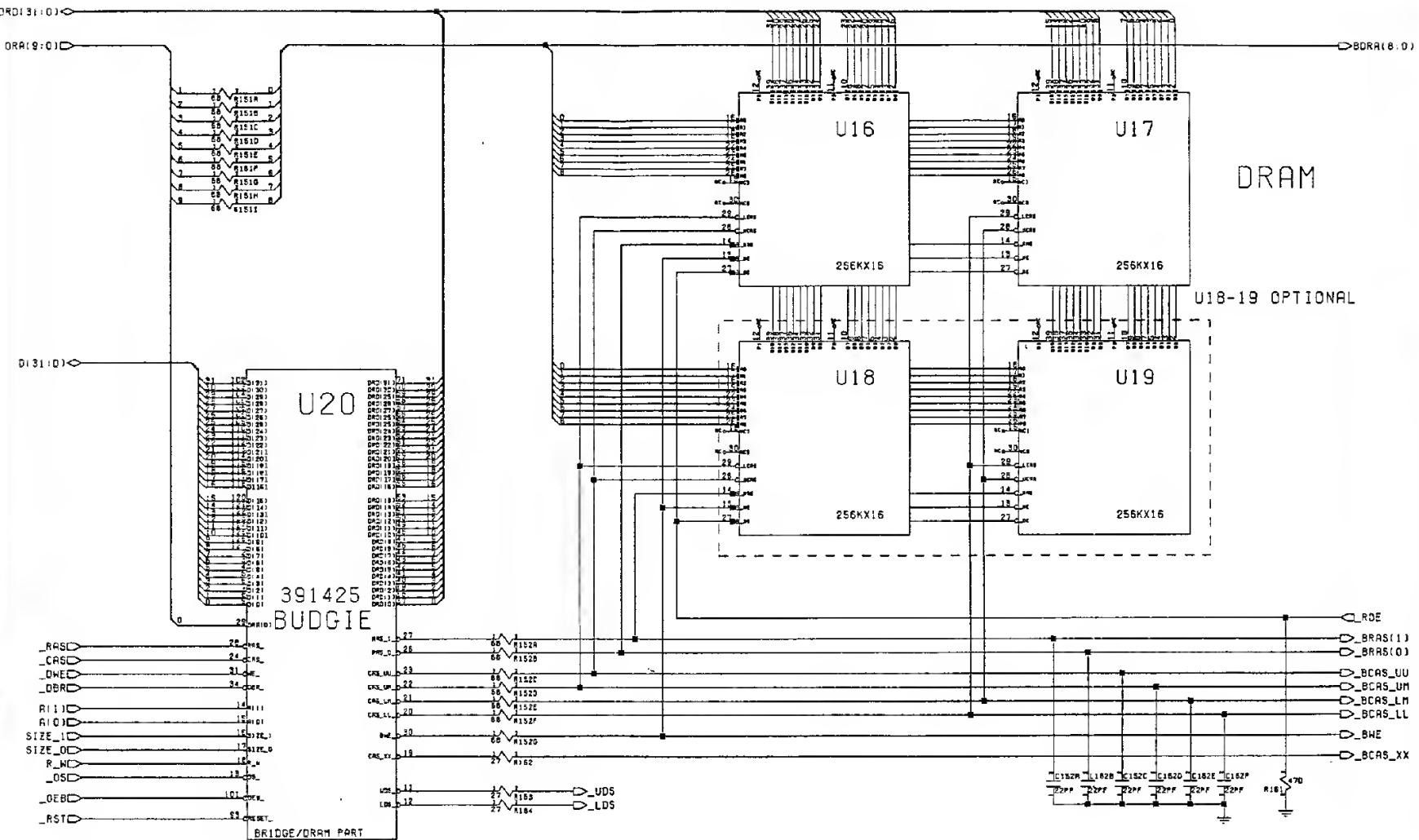
**Figure 5-3. ALICE**

G	N	C	2																	
D	R	R	R	R	G	G	G	8												
3	4	3	2	1	0	7	6	5	4	0	3	2	1	0	7	6	5	4	3	2

53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	
R5	54	R6	55	VCC2	56	R7	57	/RST	58	D31	59	D30	60	D29	61	D28	62	D27	63	D26	64
D25	65	D24	66	D23	67	D22	68	D21	69	D20	70	D19	71	D18	72	D17	73	D16	74		
	4	2	0	3																	
32	B2	31	B1	30	VCC1	29	BO	28	ZD	27	BLANK	26	SOG	25	C28M	24	/RST	23	C140	22	
21	/MLD	20	MDAT	19	RGA1	18	RGA2	17	RGA3	16	RGA4	15	RGA5	14	RGA6	13	RGA7	12	RGA8		
75	76	77	78	79	80	81	82	83	84	1	2	3	4	5	6	7	8	9	10	11	
D	D	D	D	D	V	D	G	D	D	D	D	D	D	D	D	D	D	/	C	W	
1	1	1	1	1	1	9	8	C	7	N	6	5	4	3	2	1	0	C	C	1	
5	4	3	2	1	0	C	D	C	D	A	K	D	S	1					E		

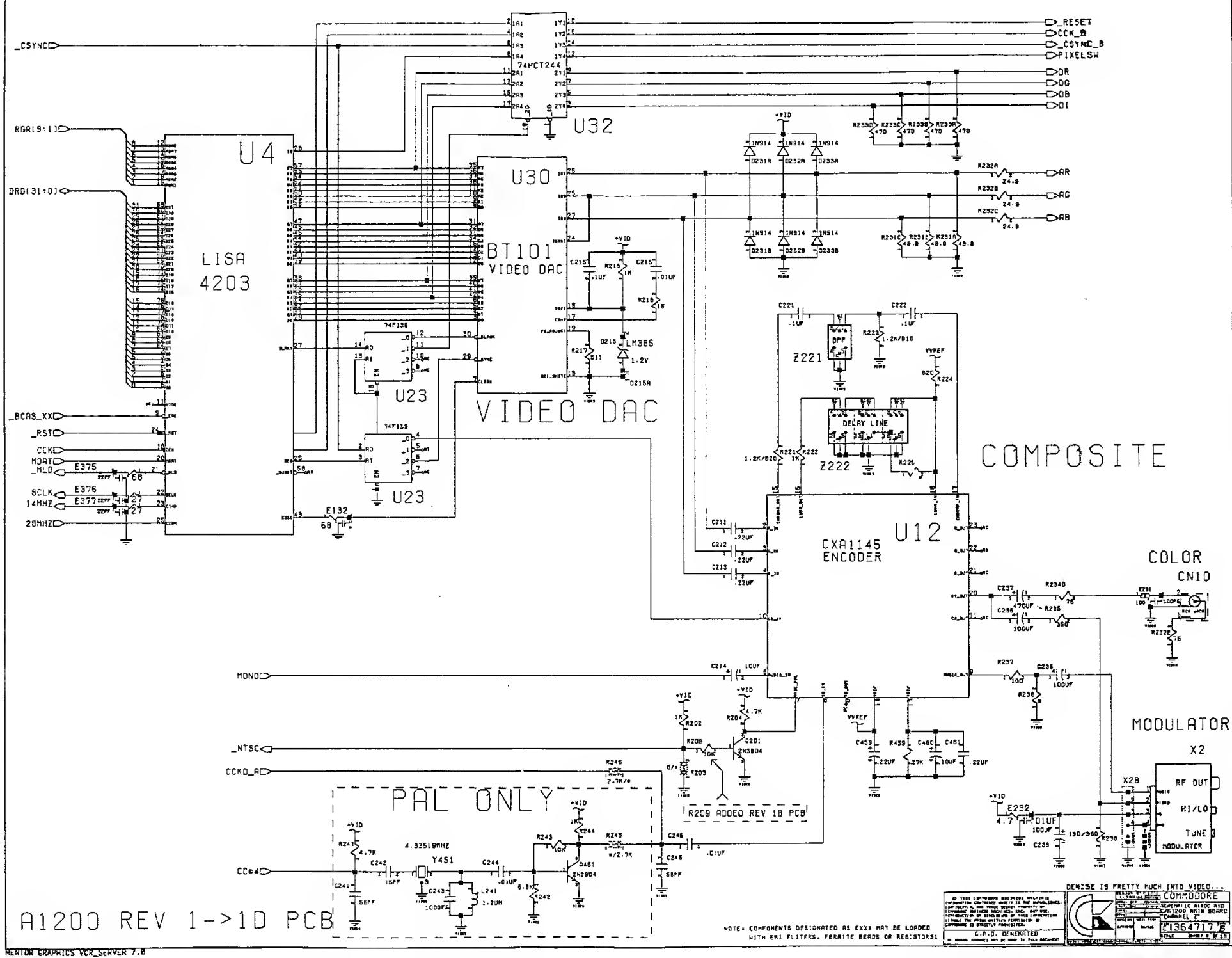
Figure 5-6. LISA





A1200 REV 1->1D PCB


MENTOR GRAPHICS VCR SERVER 7.8



A1200 REV 1->1D PCB

NOTE: COMPONENTS DESIGNATED AS EXXX MAY BE LOADED  
WITH EMI FILTERS, FERRITE BEADS OR REGISTORS.

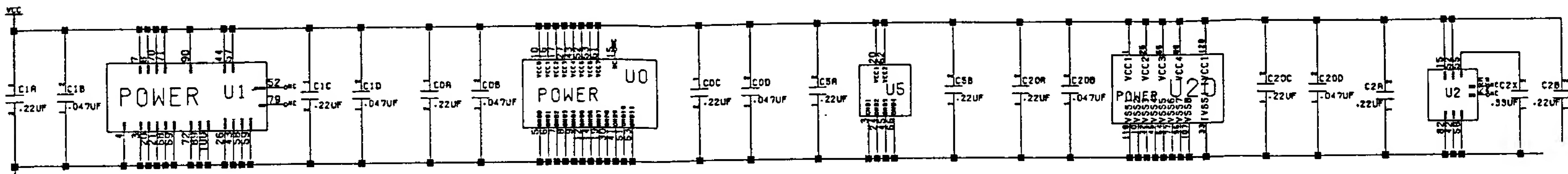
# MOUSE/JOYSTICK PORTS



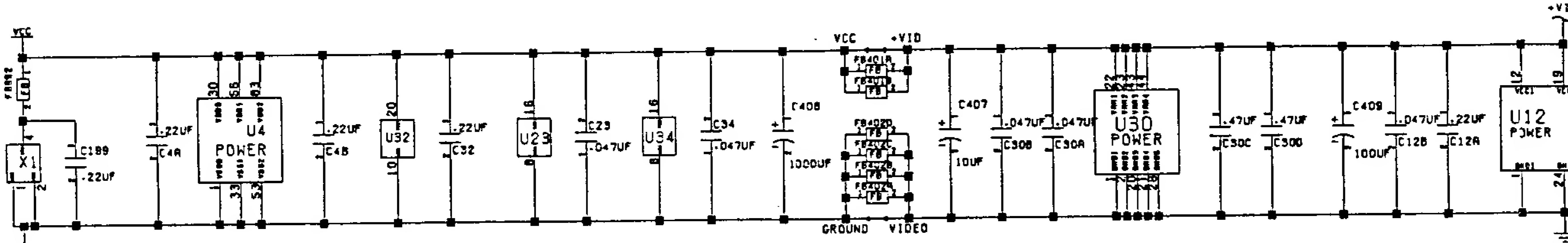
NOTE: LEO OFF, FILTERS BYPASSED

# AUDIO FILTERS

# GENERAL DECOUPLING

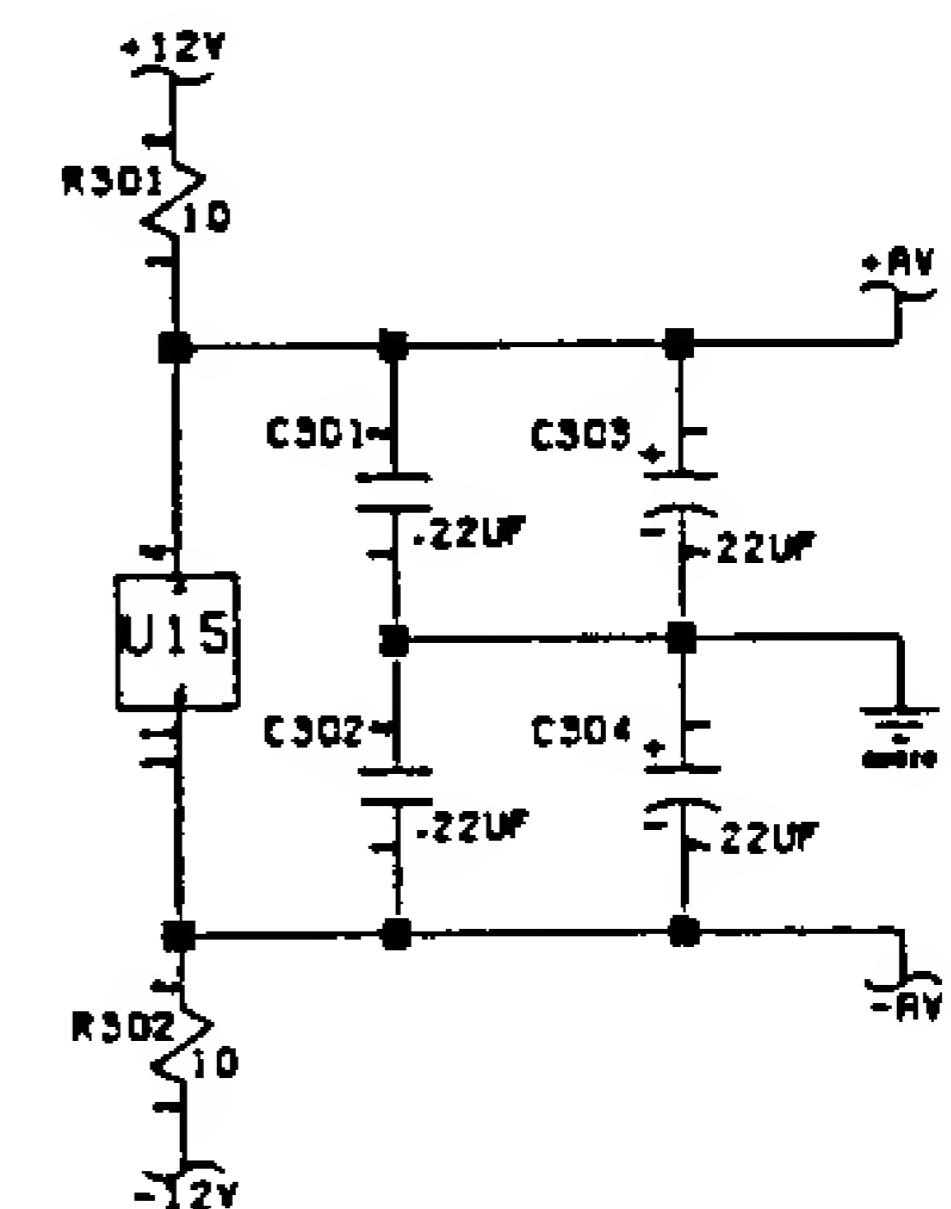


# VIDEO DECOUPLING

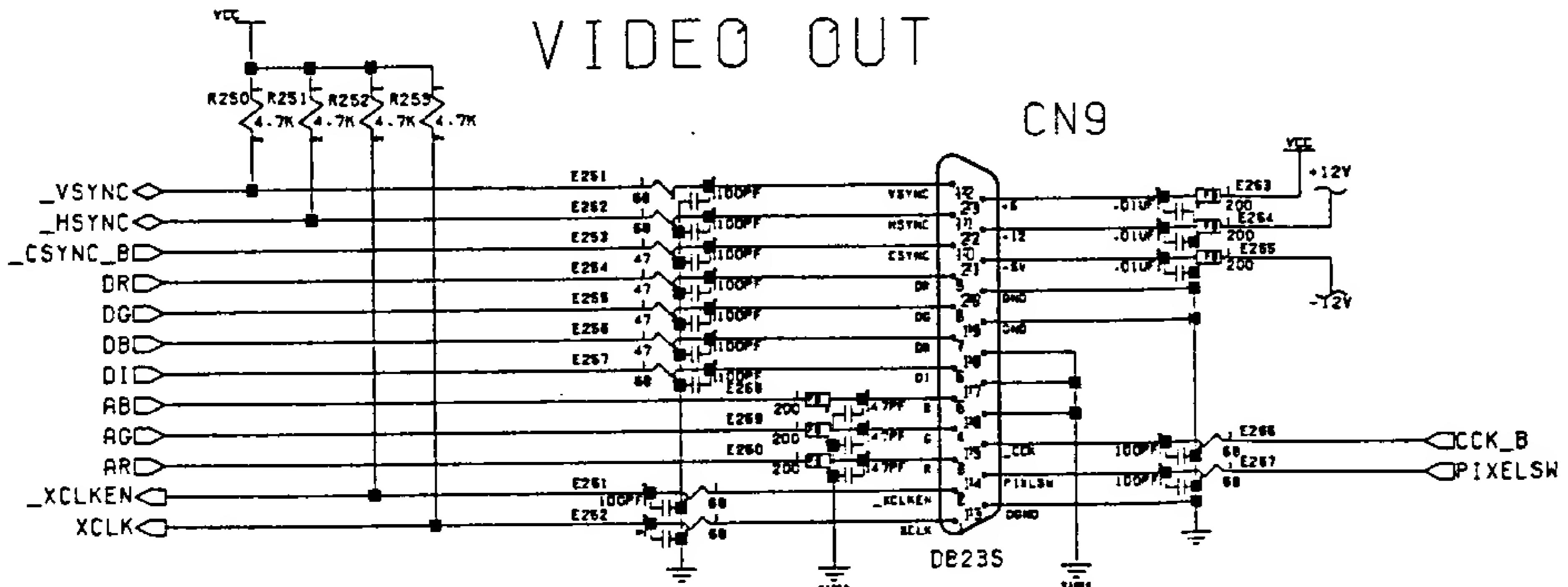


NOTE: AS OF REV 1C, LOGIC AND VIDEO GOUND AND POWER ARE  
THE SAME NET, BUT REROUTED DISCRETELY EXCEPT AT DAC1  
ALSO ADDED C30C AND C30D FOR OVERKILL DAC DECOUPLING.

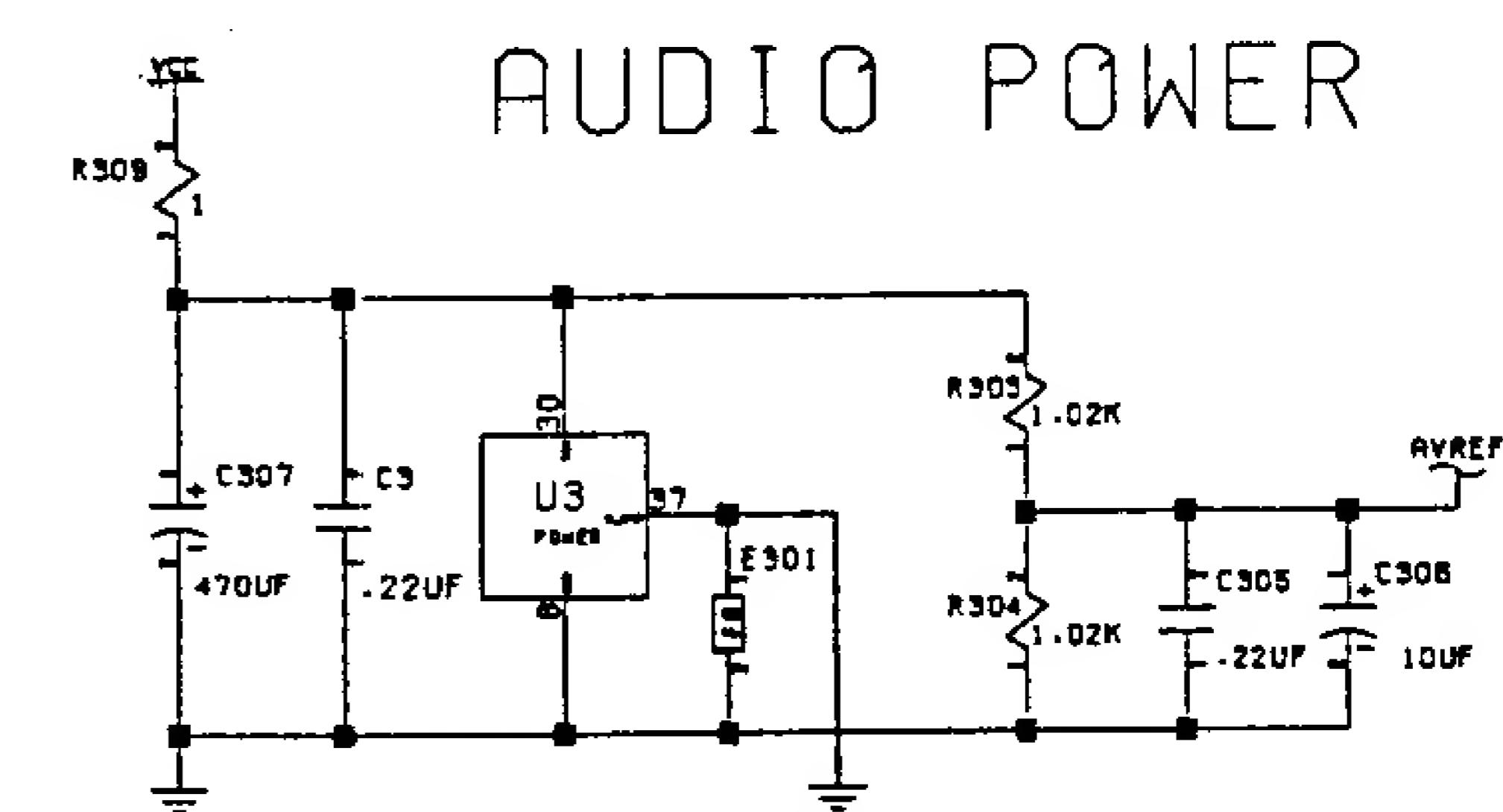
# AUDIO DECOUPLING



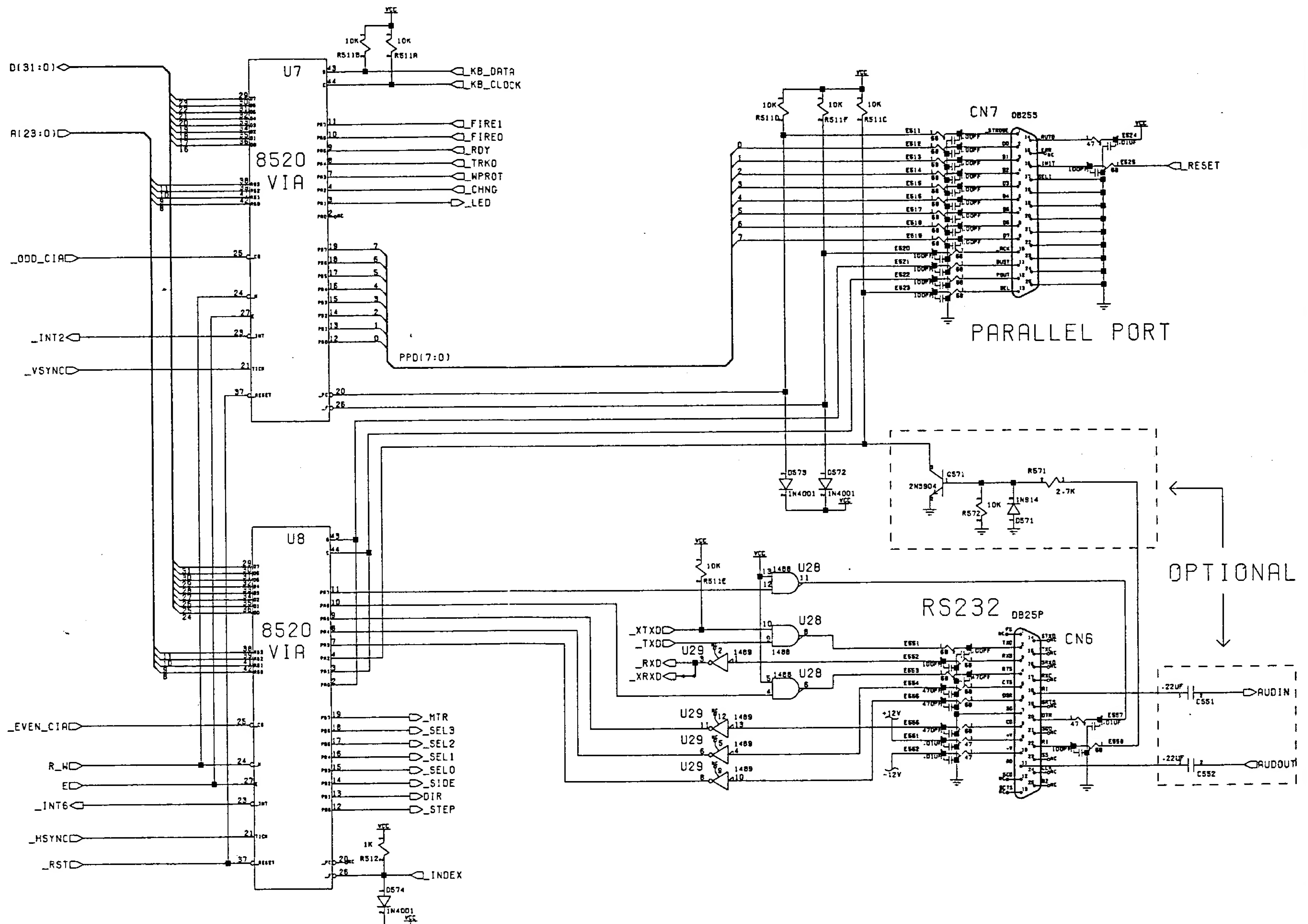
VIDEO OUT



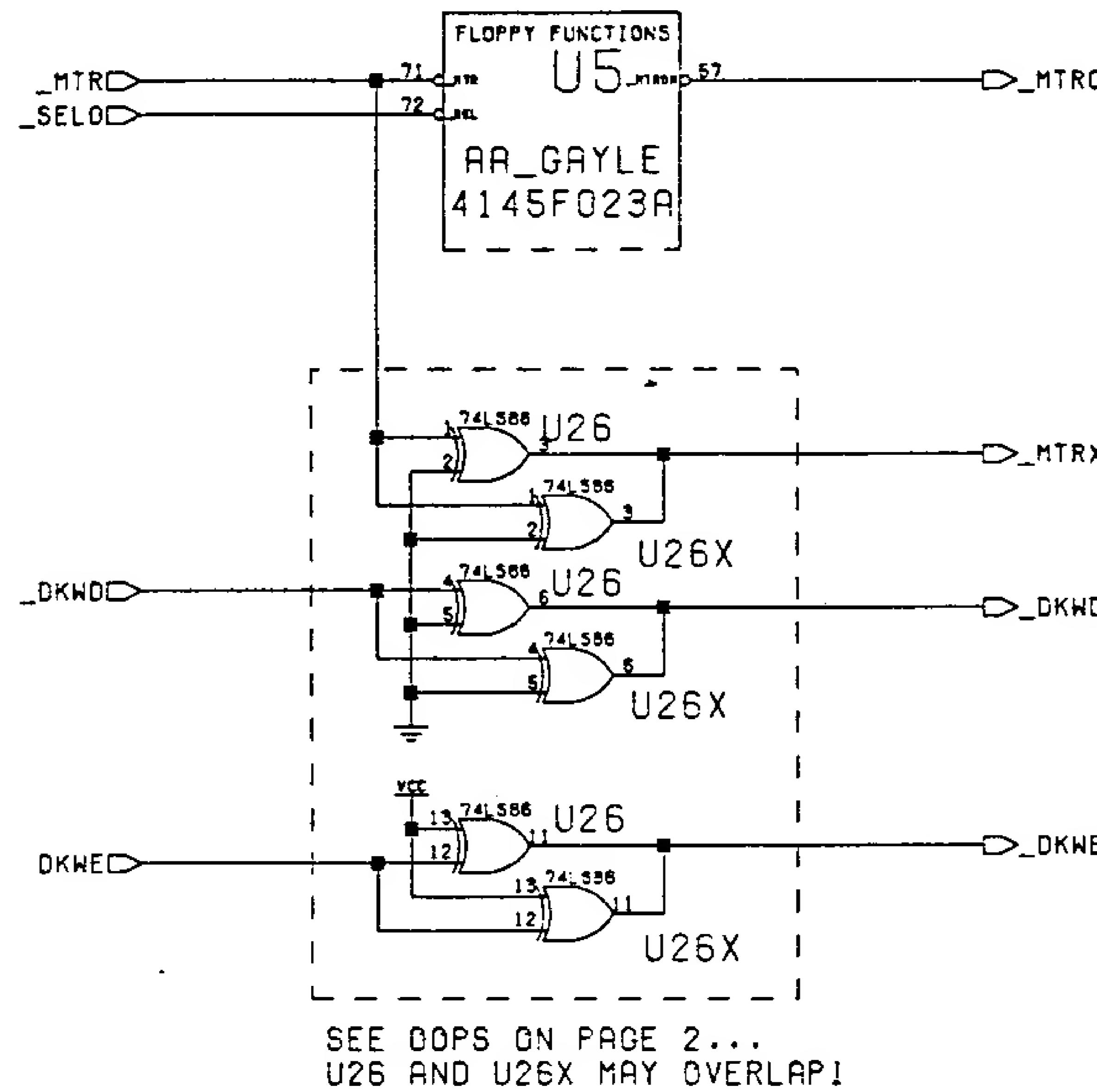
# AUDIO POWER



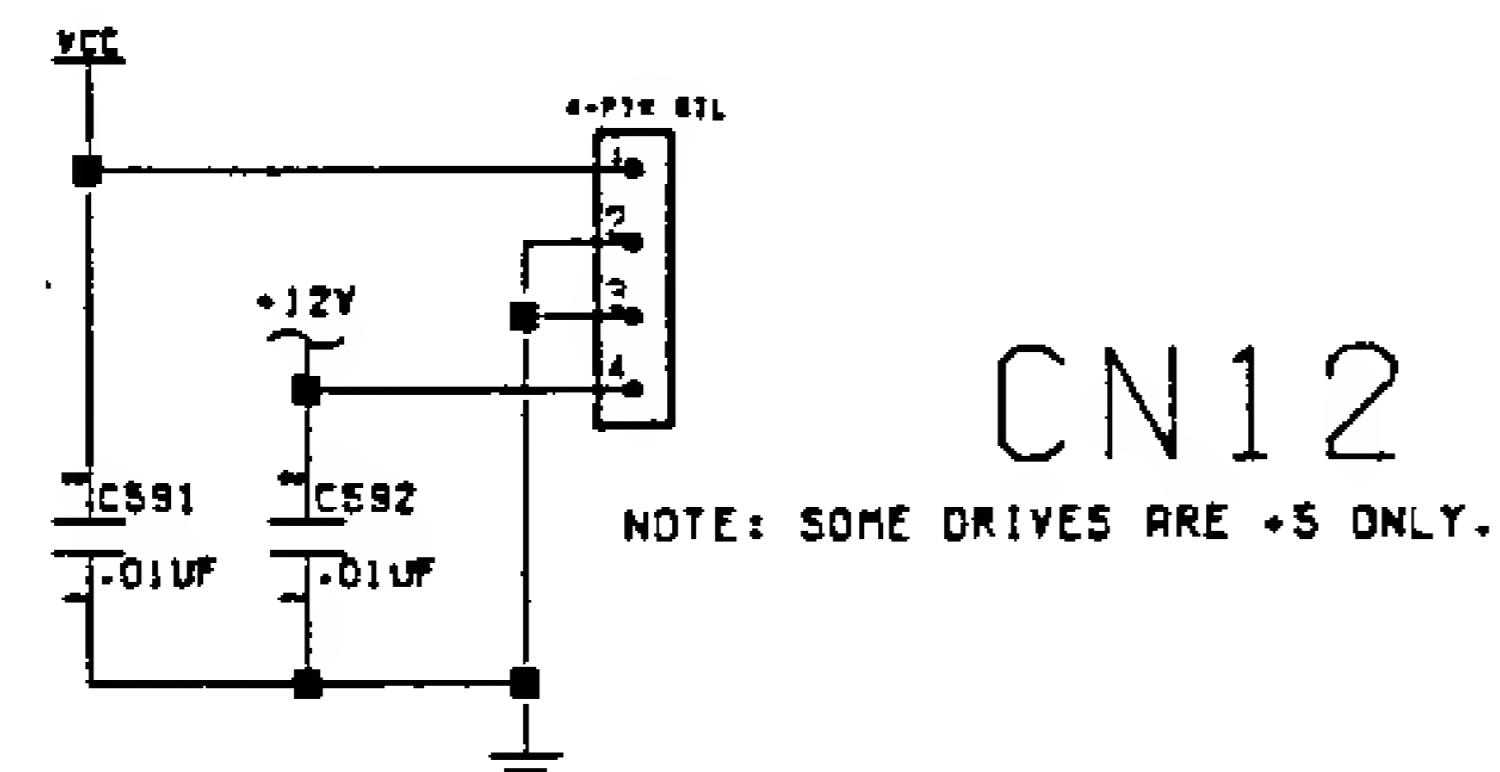
NOTE: GROUND INTERCONNECTION NEAR AUDIO JACKS.



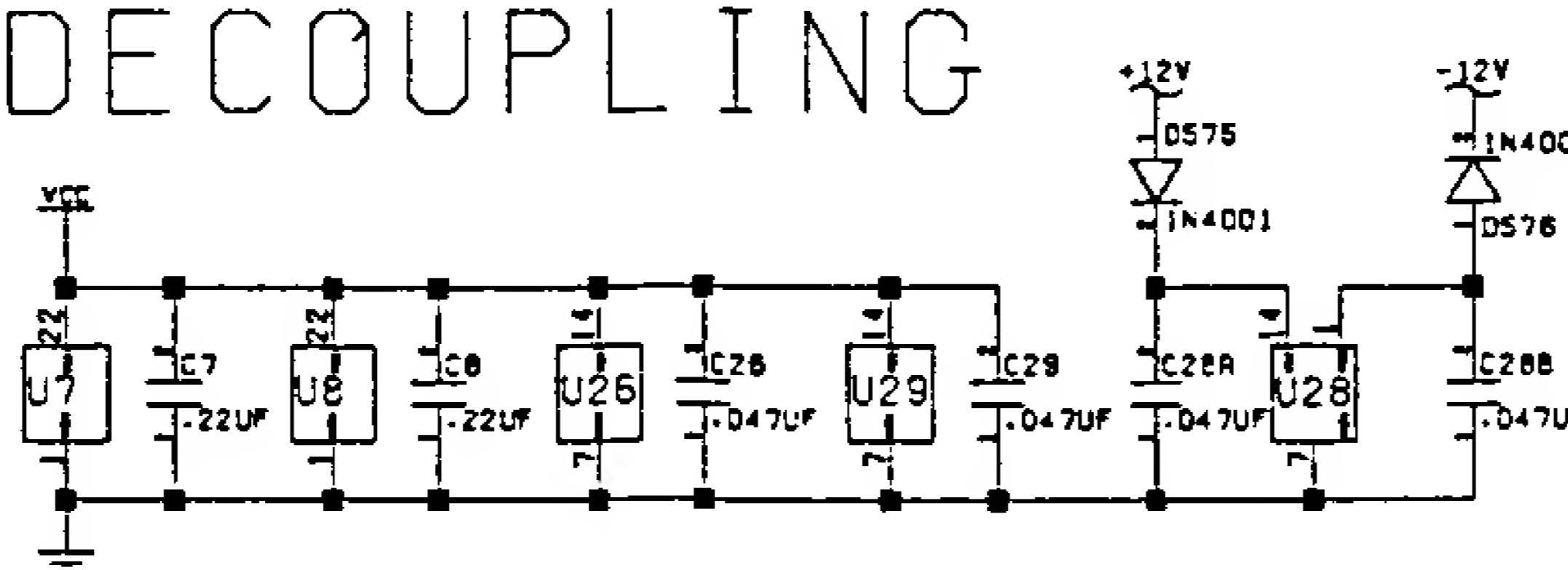
# FLOPPY LOGIC



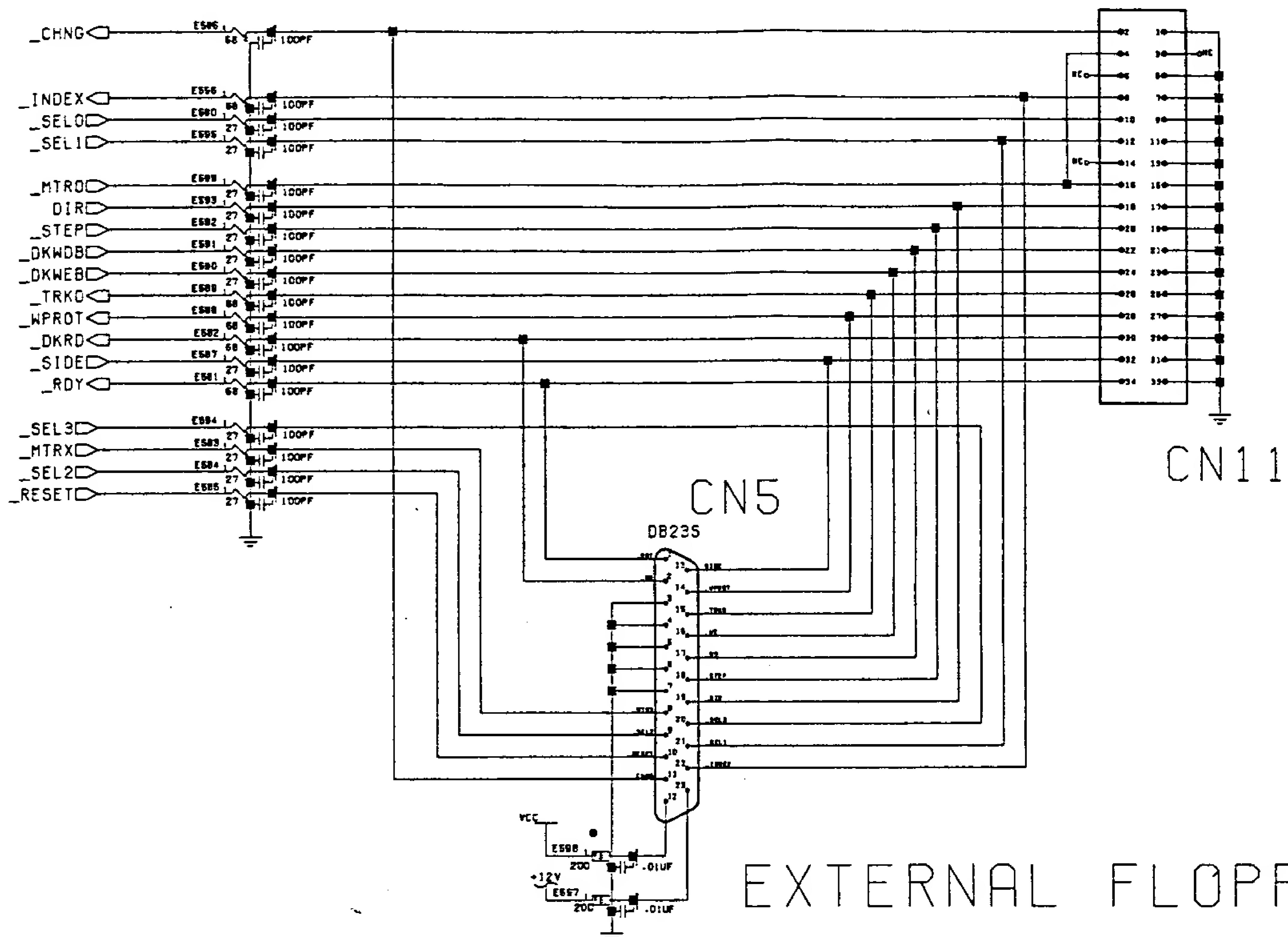
# FLOPPY POWER



# DECOUPLING



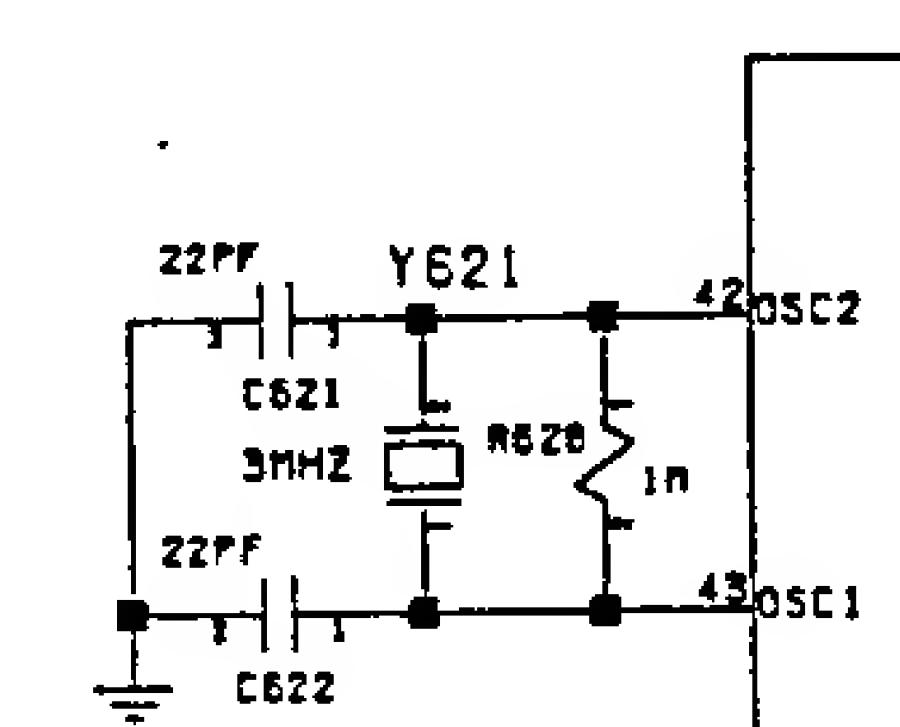
# INTERNAL FLOPPY



# EXTERNAL FLOPPY

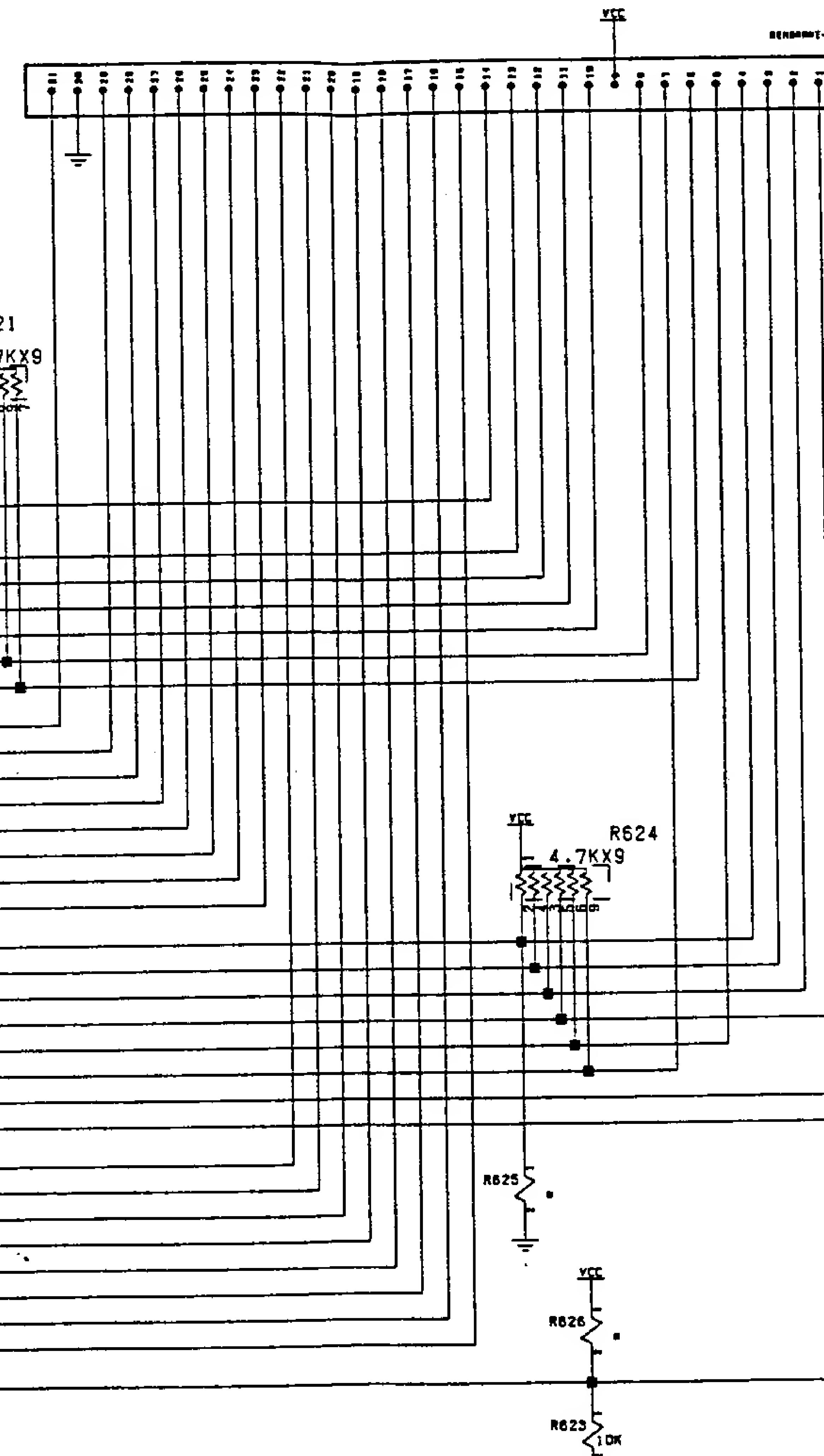
A1200 REV 1 ->10 PCB

# KEYBOARD MPU



68HC05C  
KEYBOARD  
MICRO

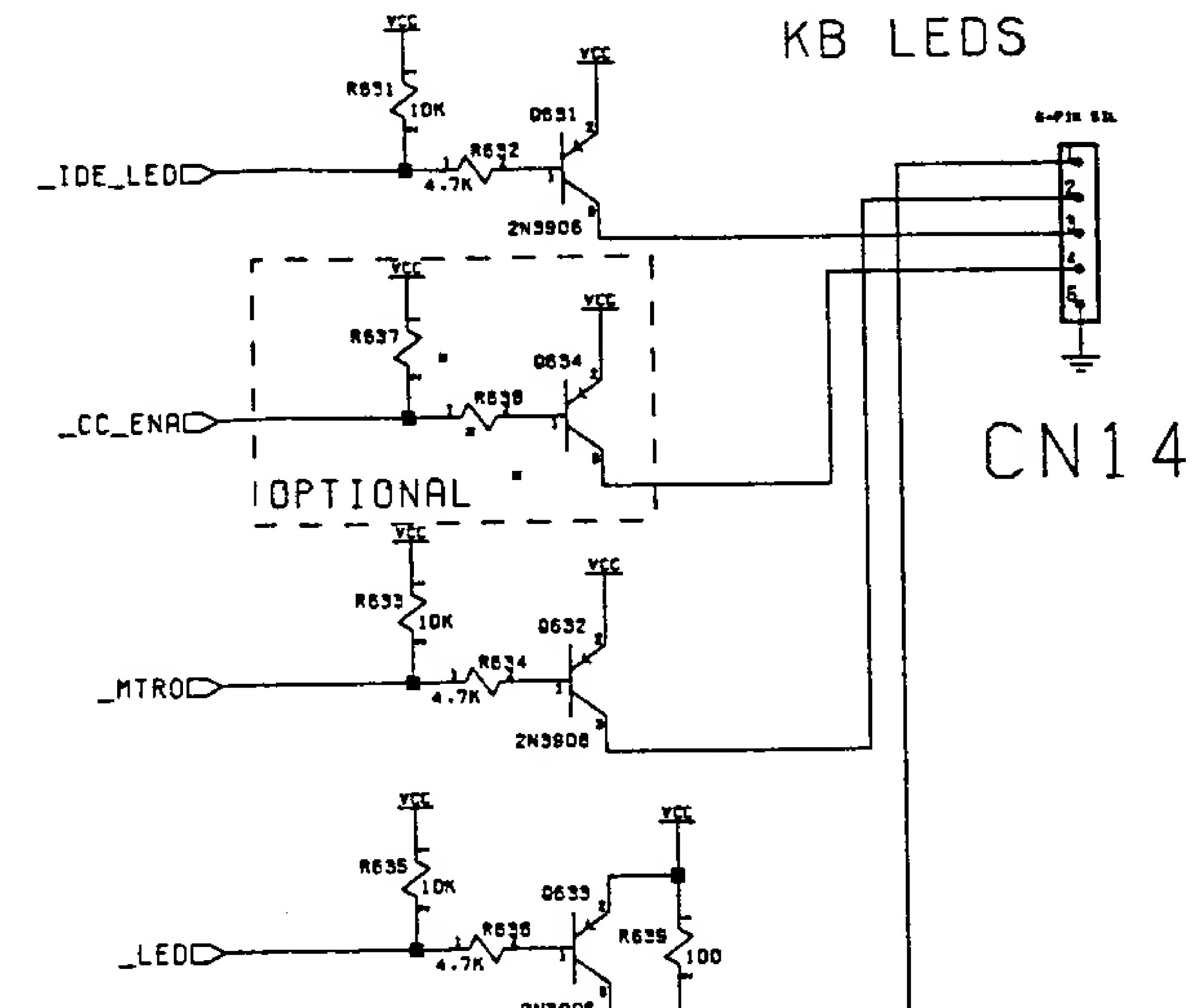
U13



POWER OK

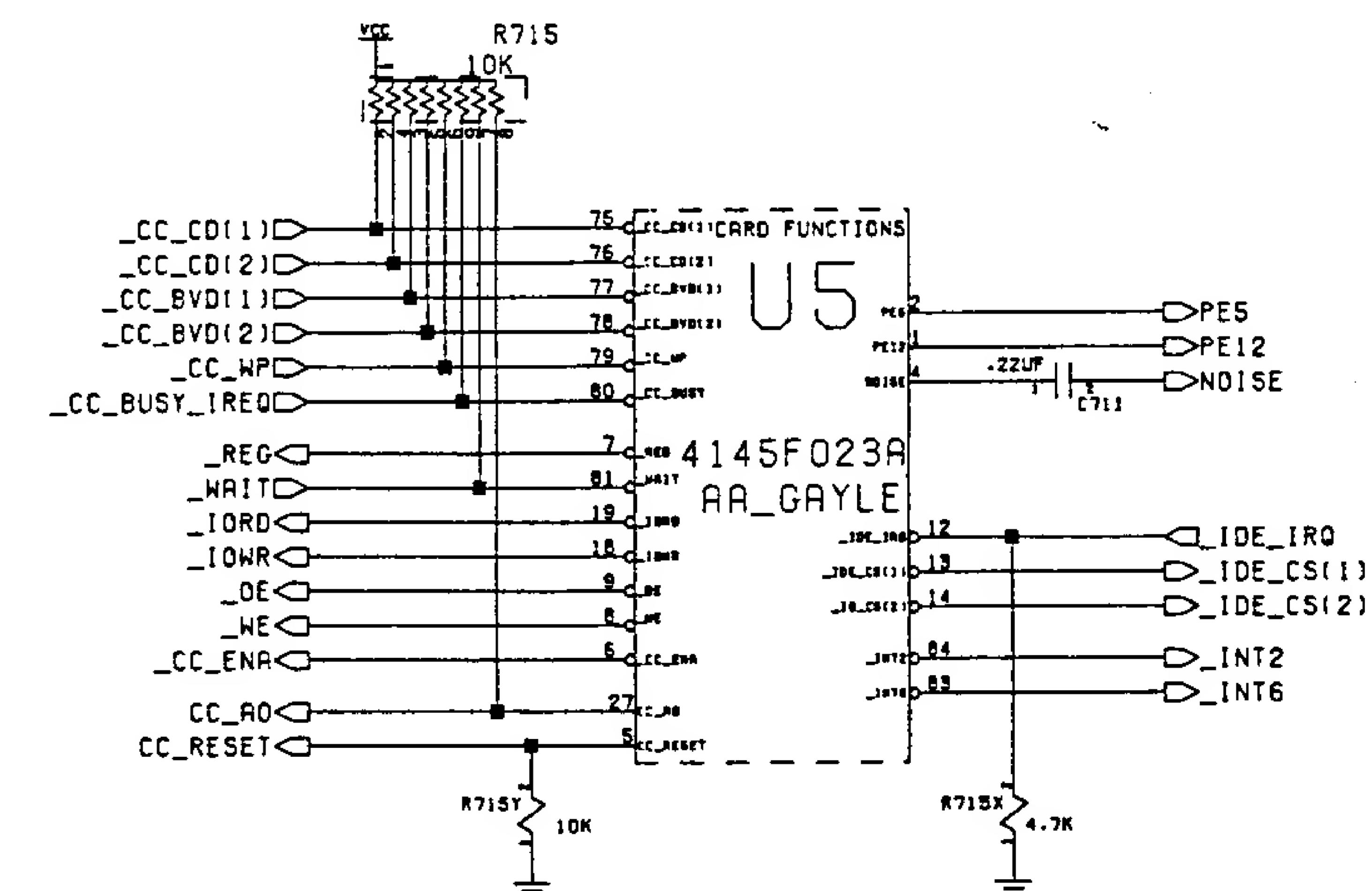
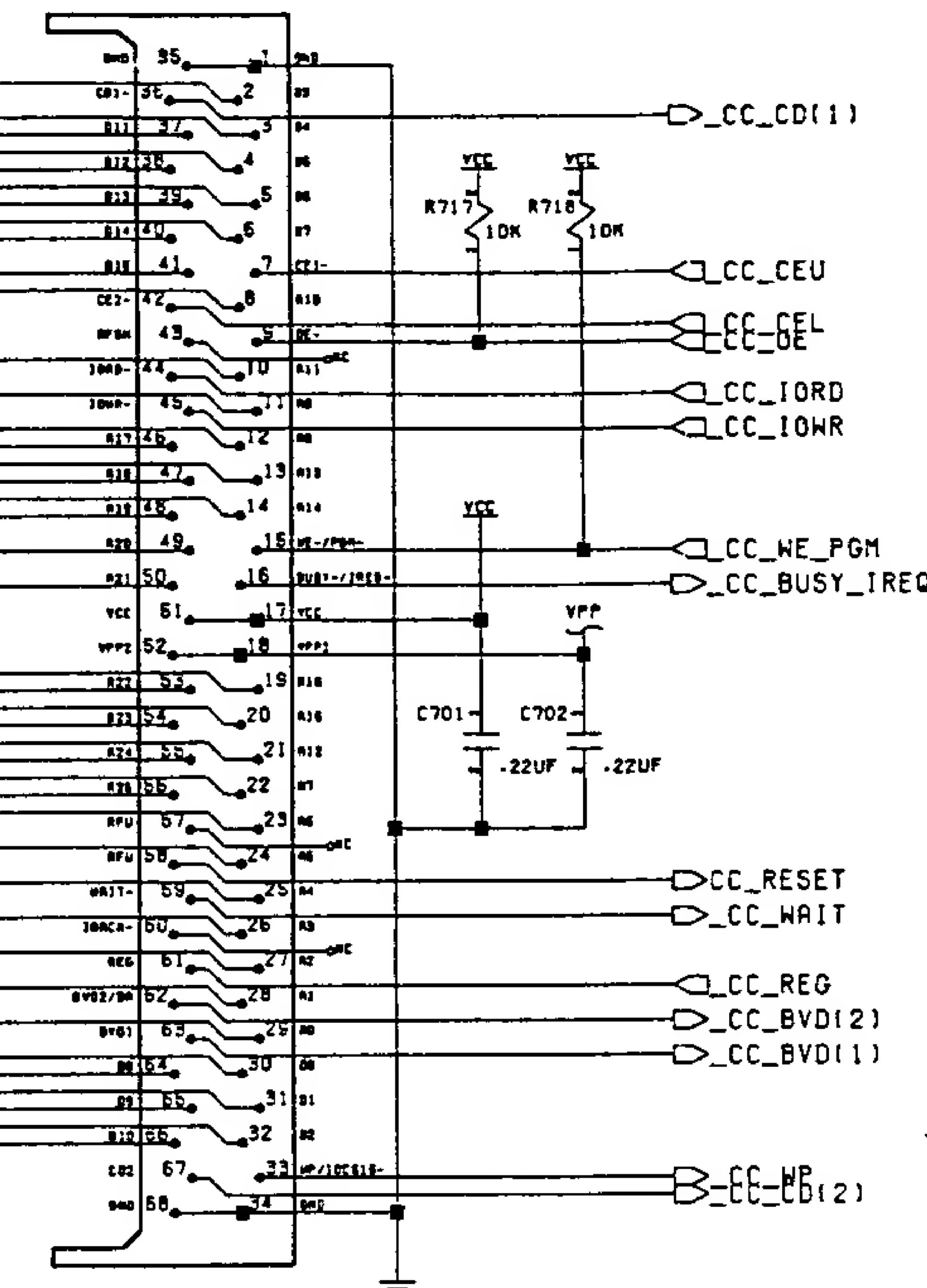
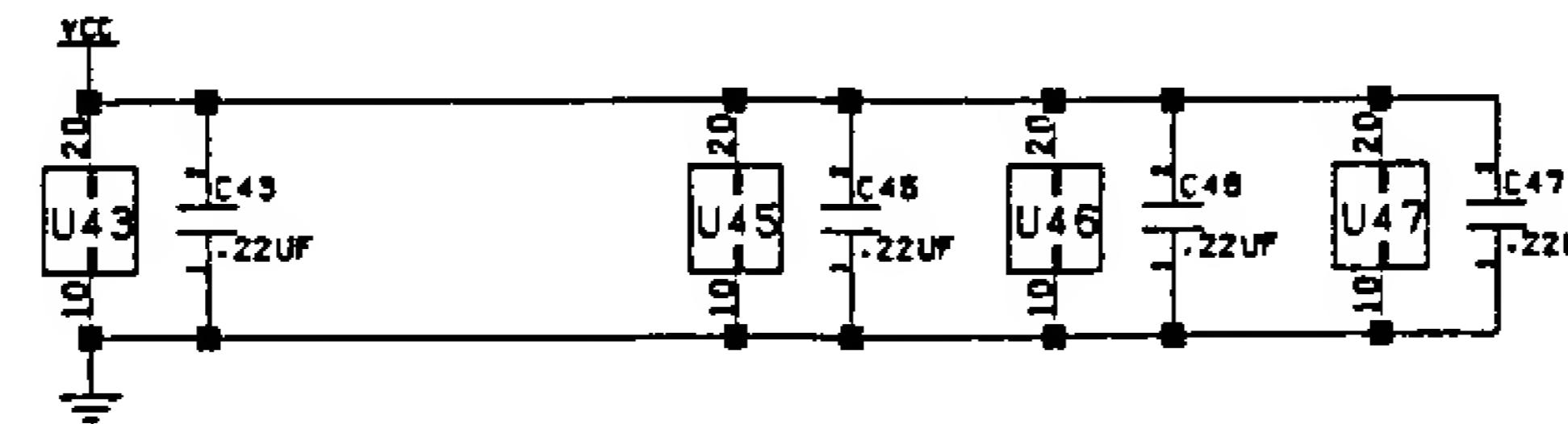
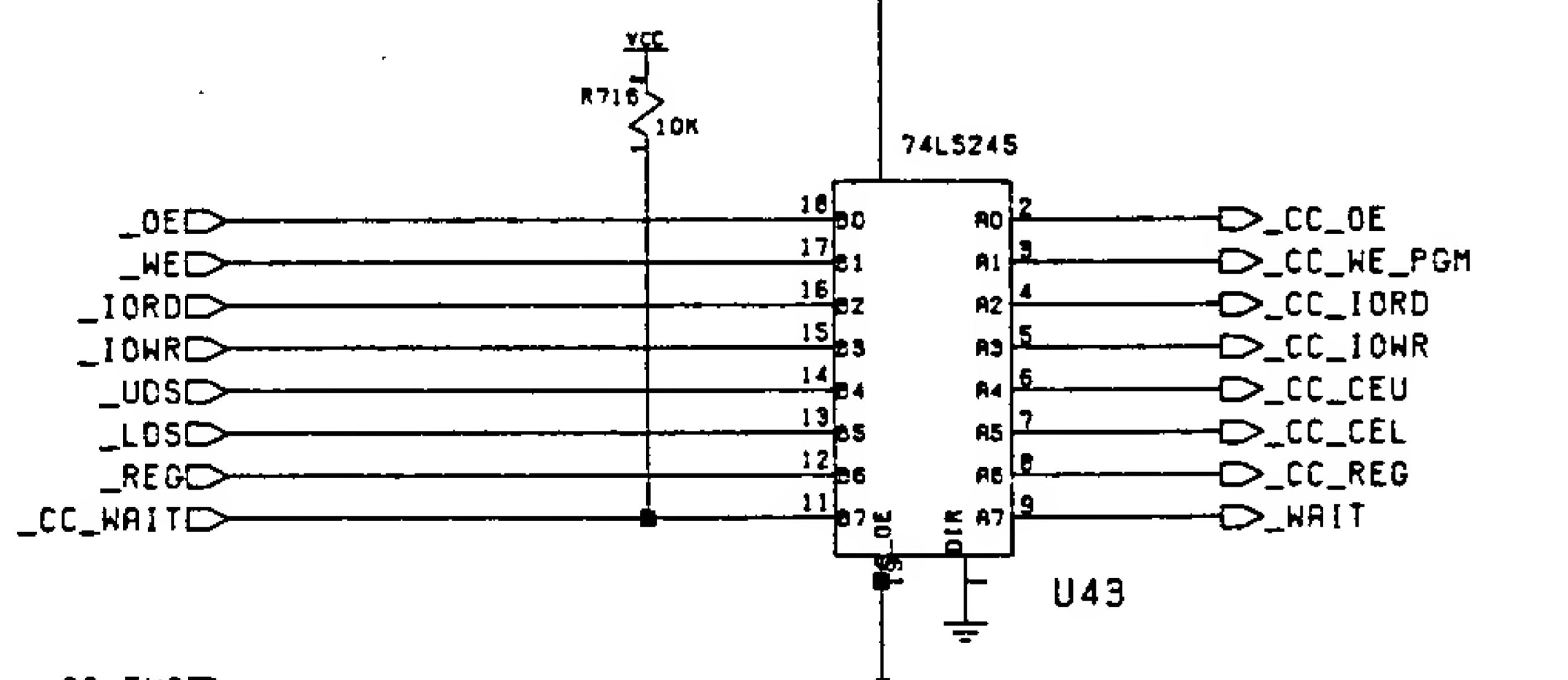
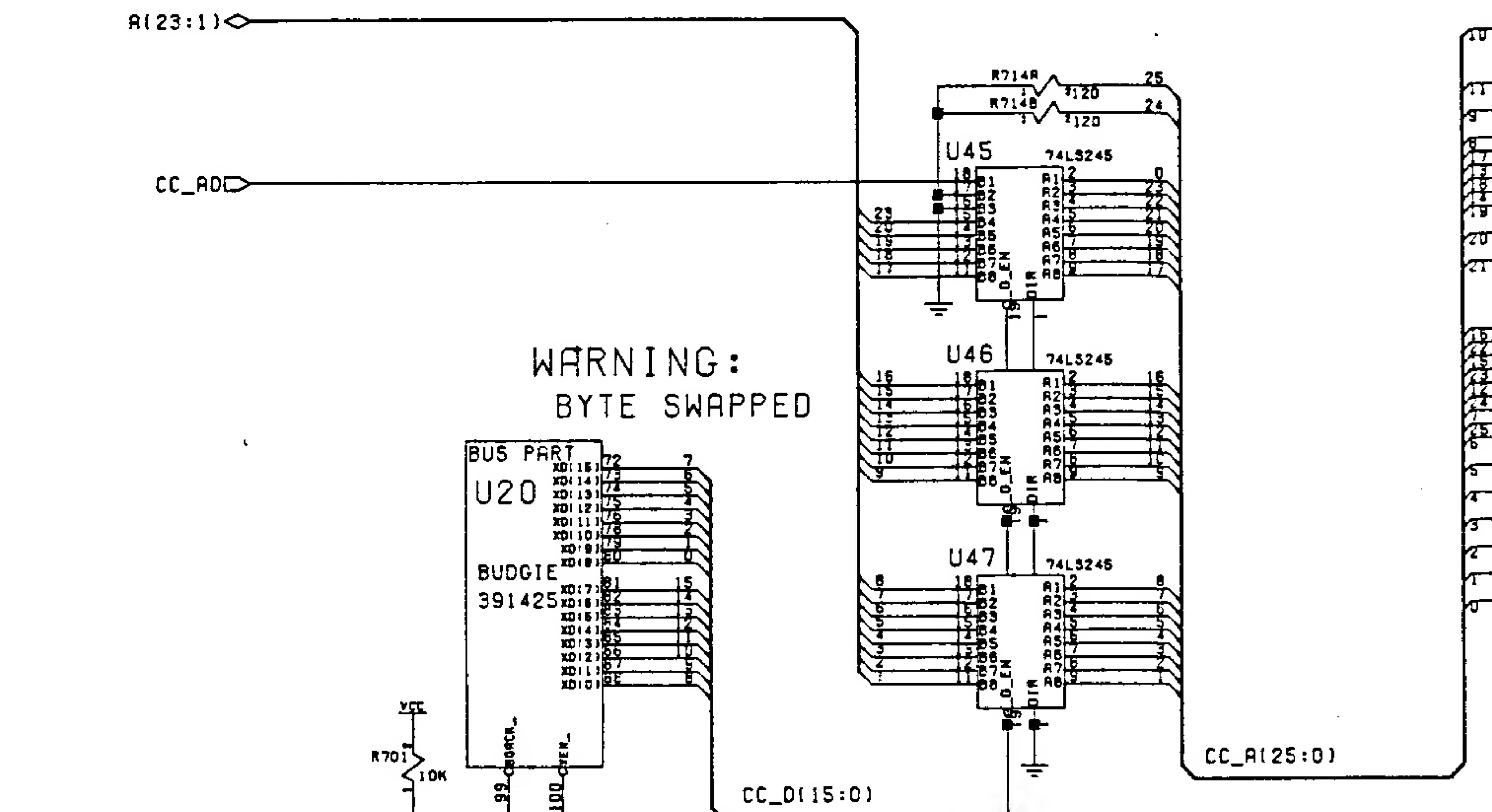
A1200 REV 1->1D PCB

KEYBOARD TAIL CN13



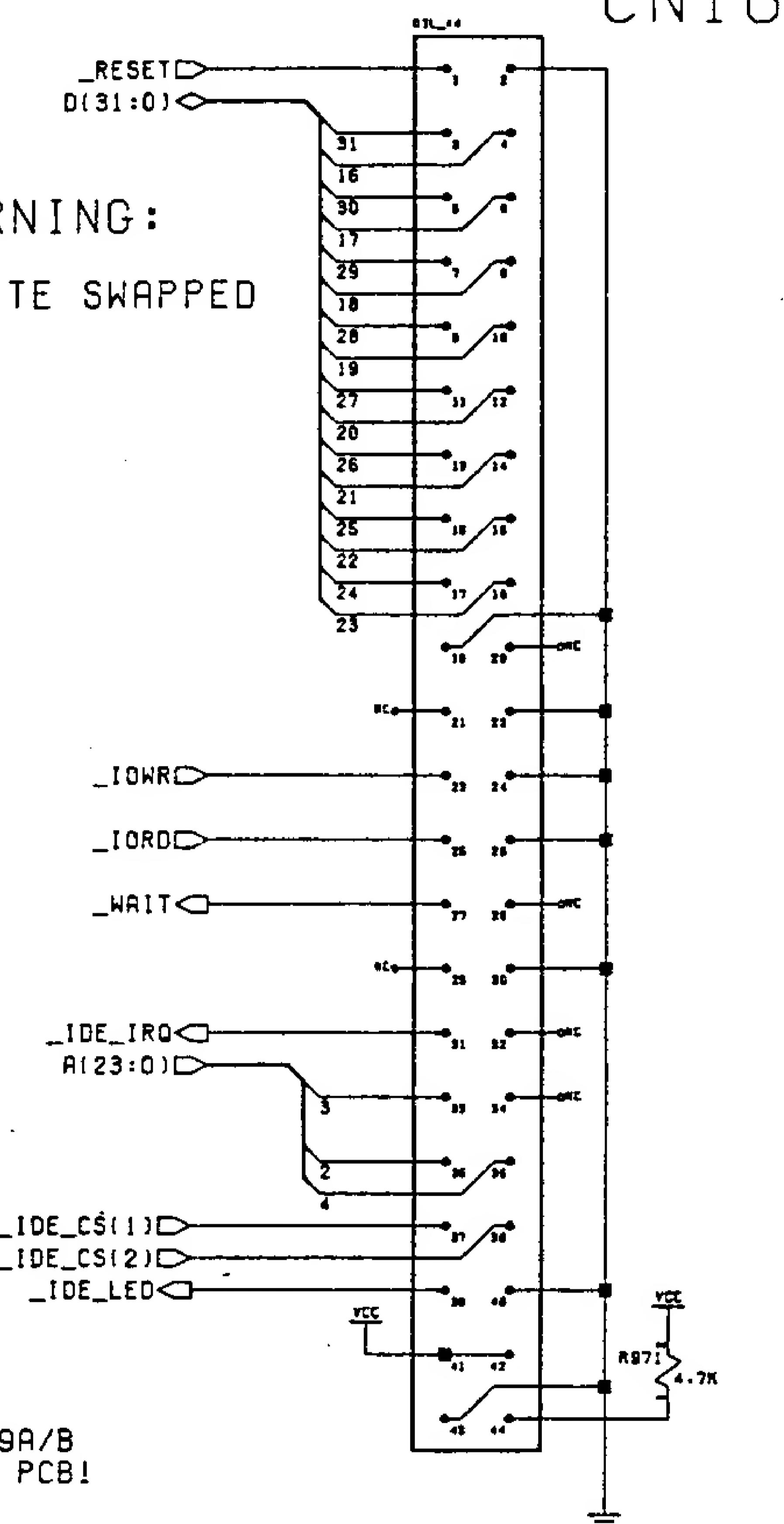
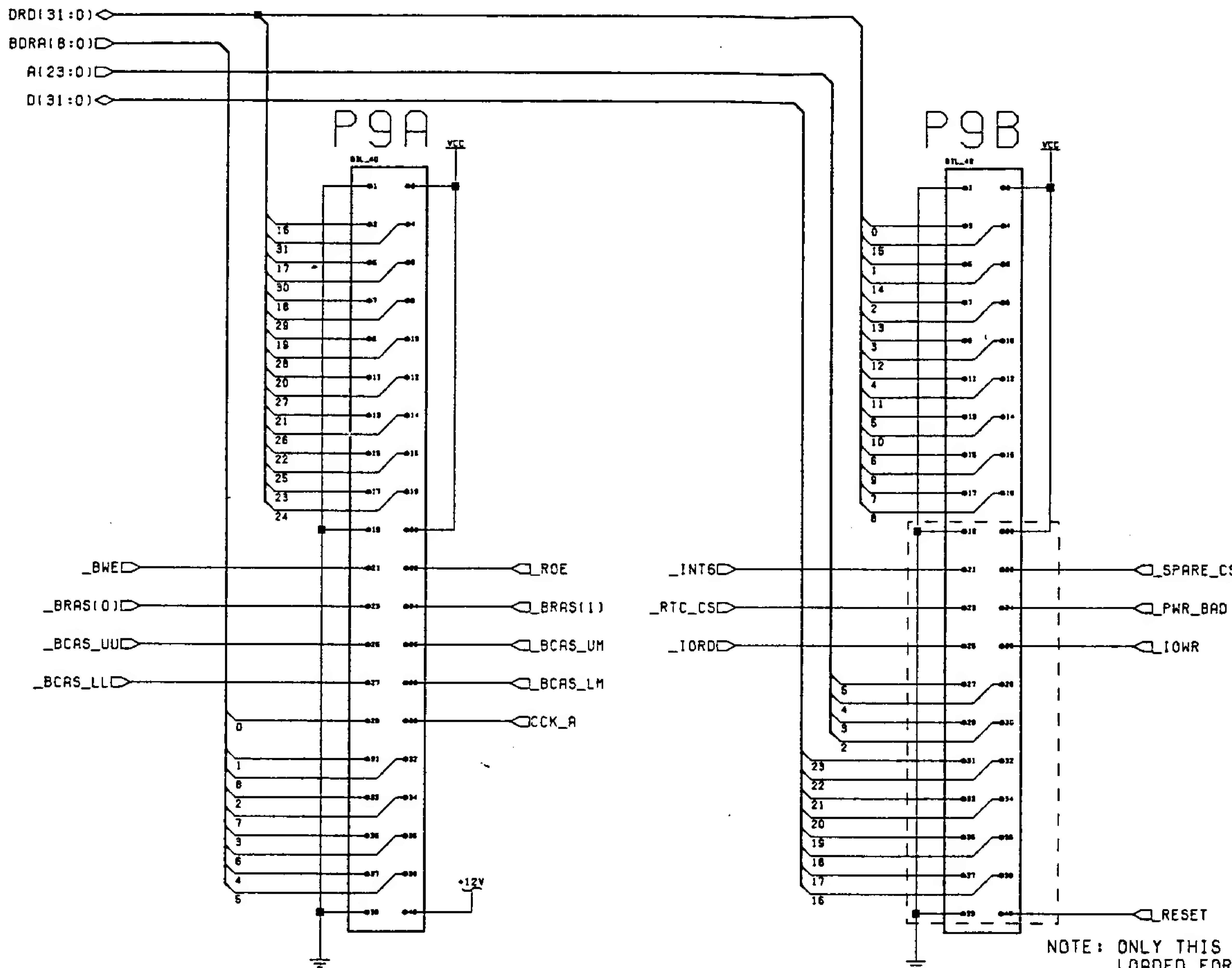
## MEMORY CARD

CN15



# MEMORY EXPANSION

# I D E   D R I V E

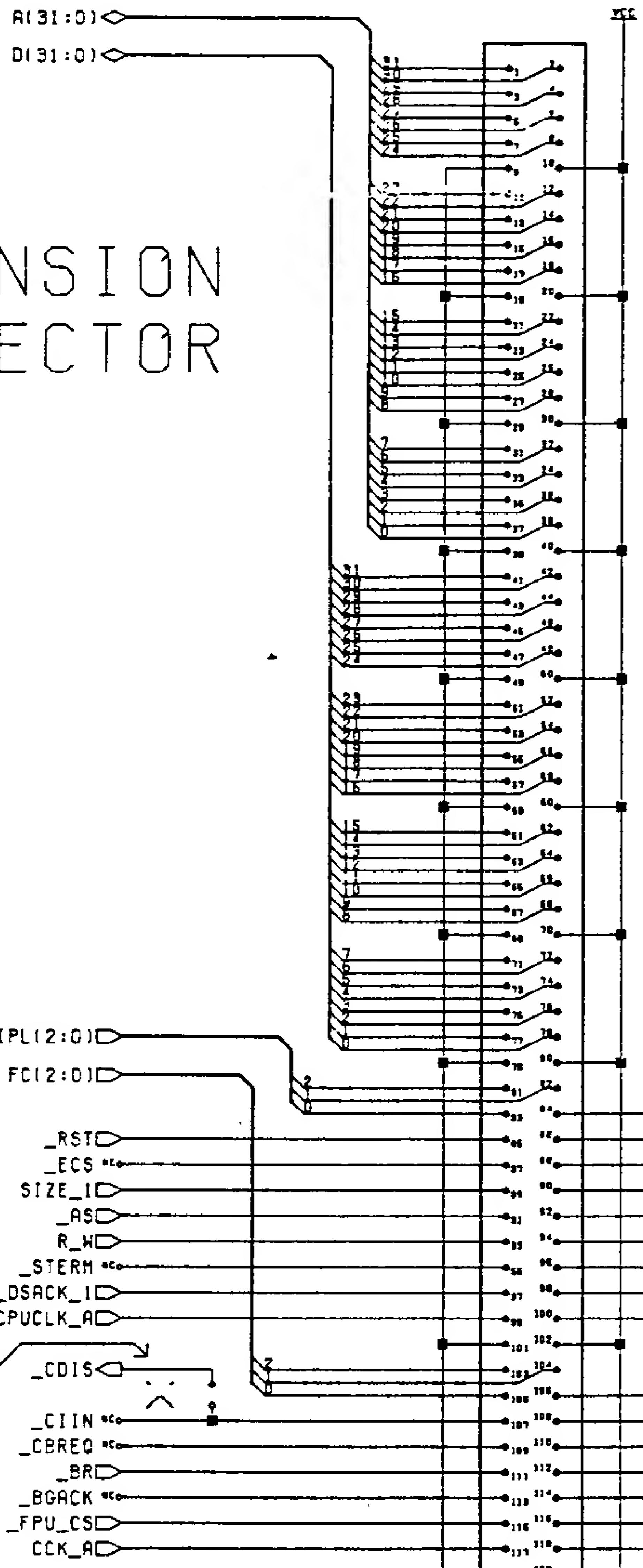


# WARNING:

## BYTE SWAPPE

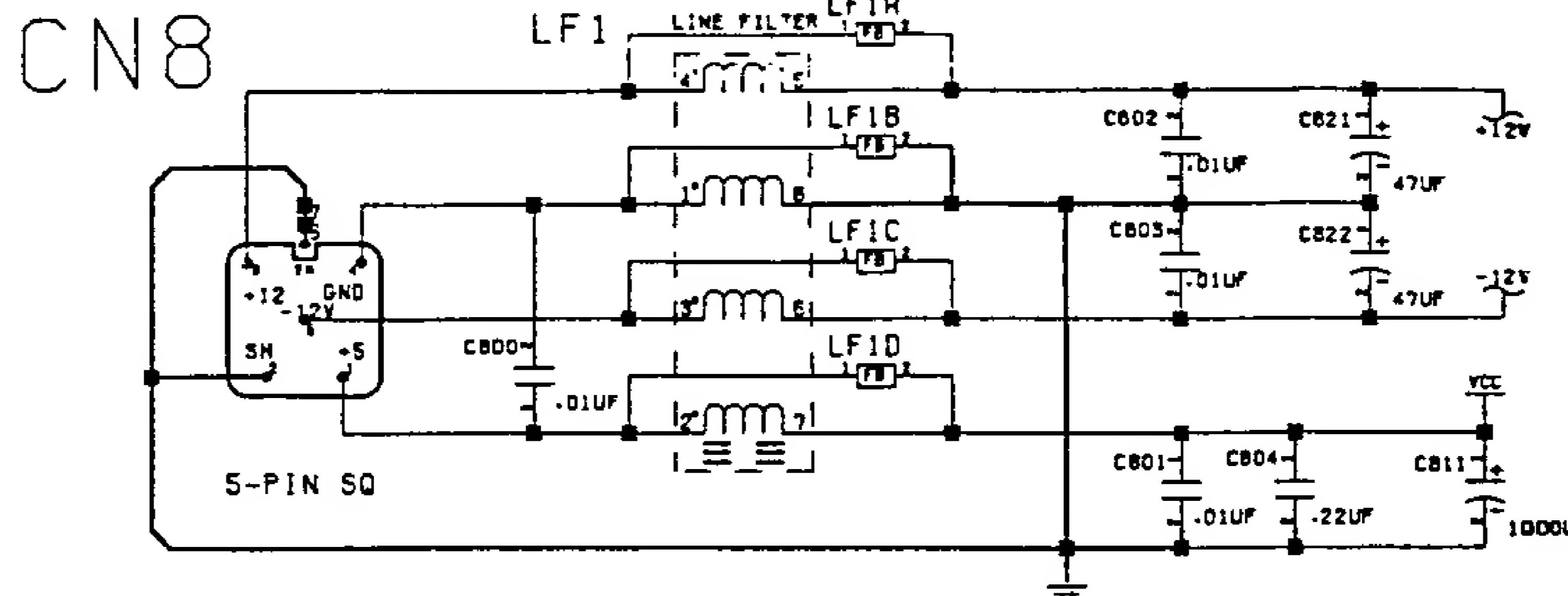
NOTE: ONLY THIS BIT OF P9A/B  
LORDED FOR 2M-BYTE PCB

# EXPANSION CONNECTOR

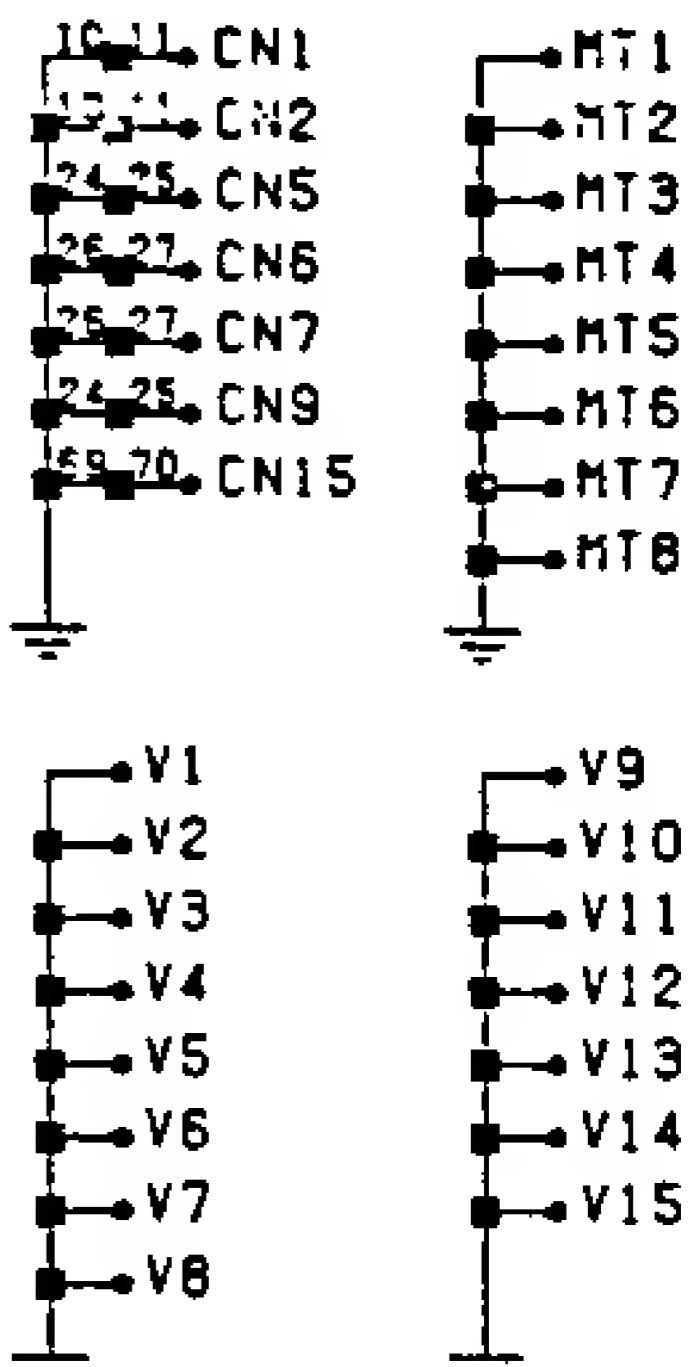


P 1

# POWER INPUT

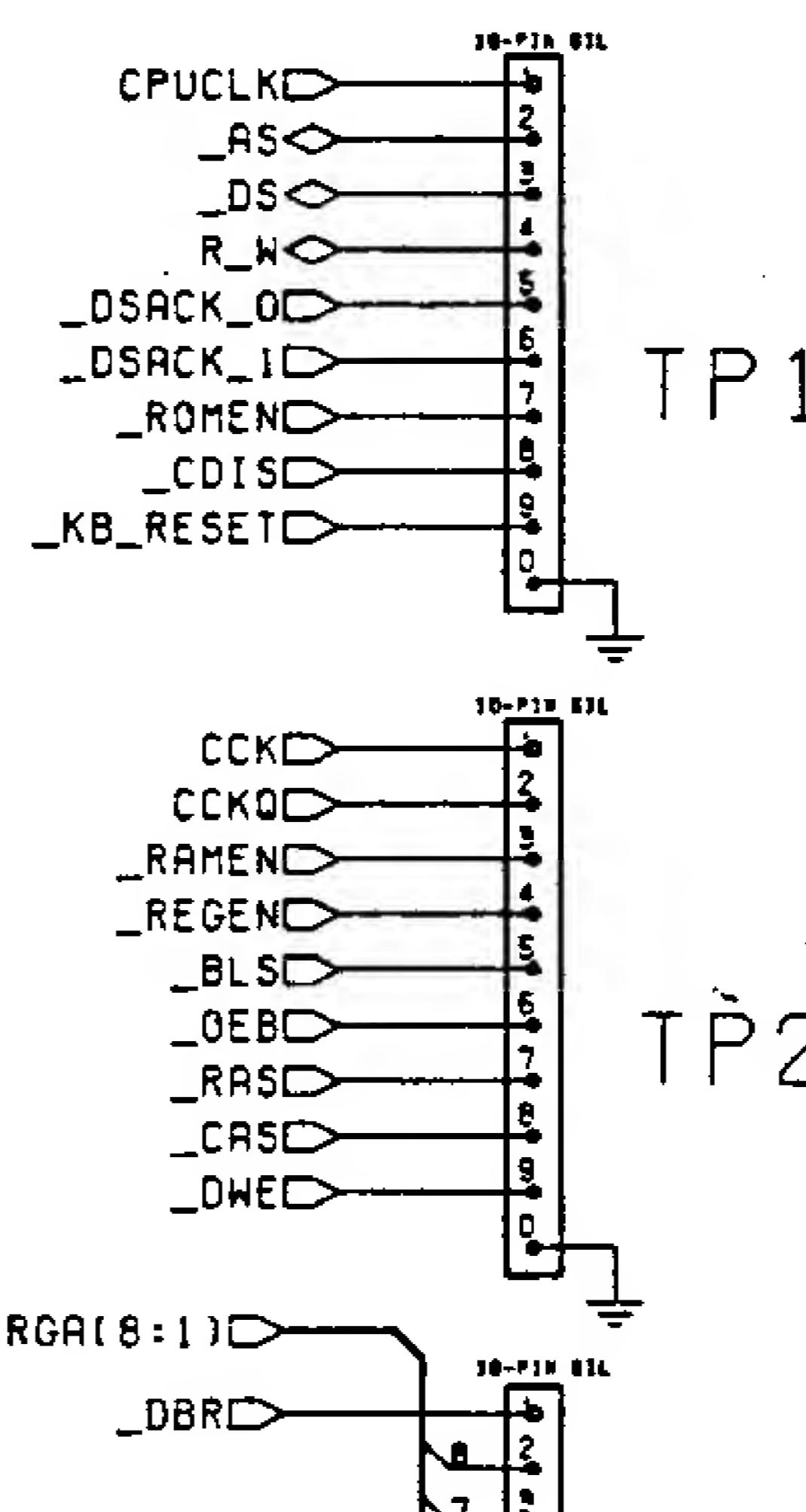


HOLES & C.

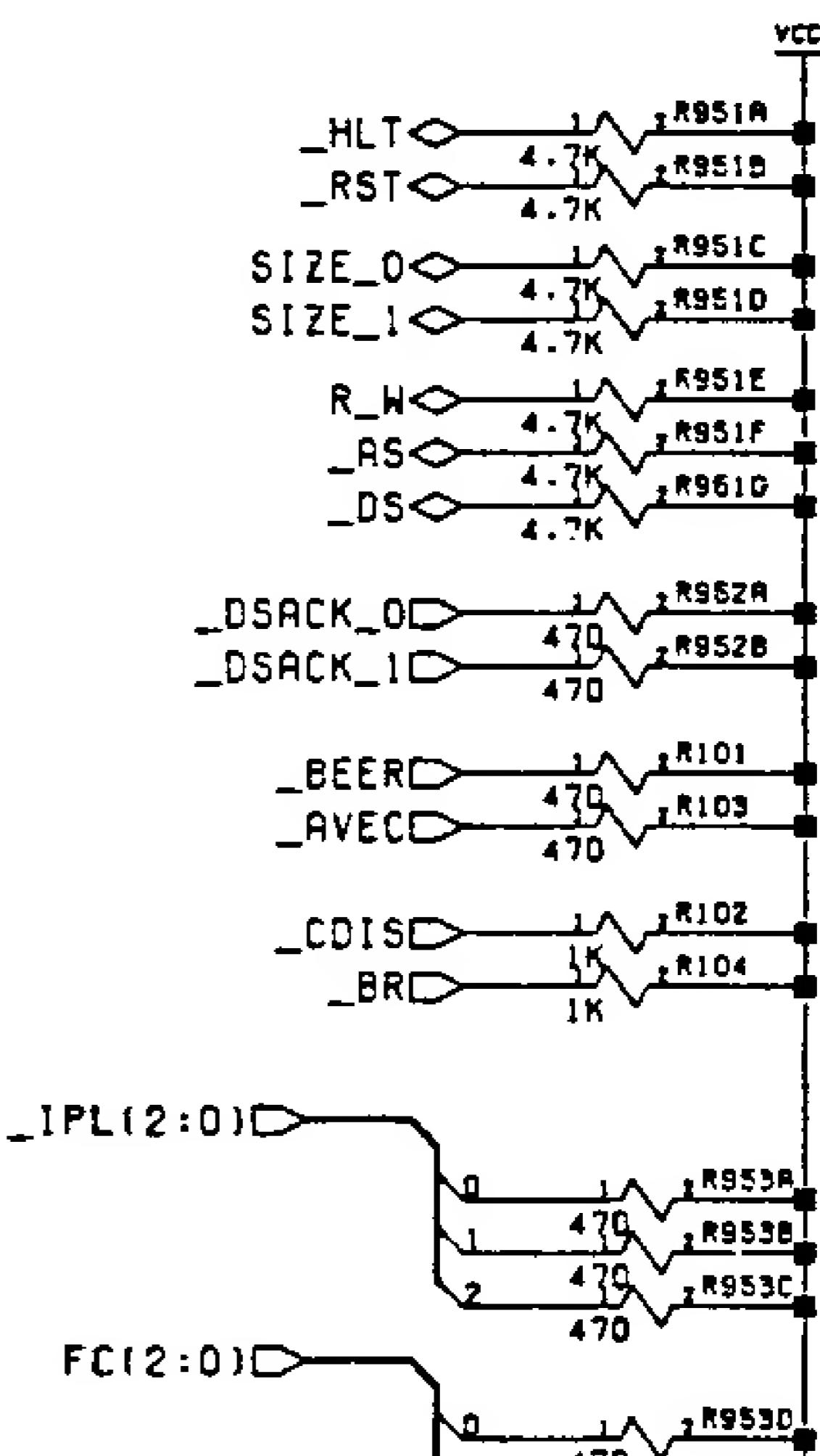


NOTE: HEAVY LINES INDICATE A SINGLE POINT CONNECTION

# TEST ACCESS



# TERMINATION



## JUMPERS AND STUFF

## CONNECTORS

REF	TYPE	DESCRIPTION	PAGE
CN1	DSPP	MOUSE/JOYSTICK 1	5
CN2	DSPP	MOUSE/JOYSTICK 2	5
CN3	RCA-J	RIGHT AUDIO OUTPUT	5
CN4	RCA-J	LEFT AUDIO OUTPUT	5
CN5	DB25S	EXTERNAL FLOPPY	6
CN6	DB25P	RS232 SERIAL PORT	7
CN7	DB25P	RS232 PARALLEL PORT	7
CN8	DB25P	POWER SUPPLY CONNECTOR	13
CN9	DB25P	VIDEO OUTPUT	6
CN10	RCA-J	COMPOSITE VIDEO	14
CN11	DL-34	INTERNAL FLOPPY SIGNALS	14
CN12	SI-4	INTERNAL FLOPPY POWER	19
CN13	HEM-30	KEYBOARD MEMBRANE	19
CN14	SI-4	INTERNAL FLOPPY POWER	19
CN13	HEM-30	KEYBOARD MEMBRANE	19
CN14	SI-4	KEYBOARD STATUS LED'S	19
CN15	PCMCIA	PC "MEMORY CARD"	11
P9	EDGE-EI	MEMORY BUS EXPANSION	12

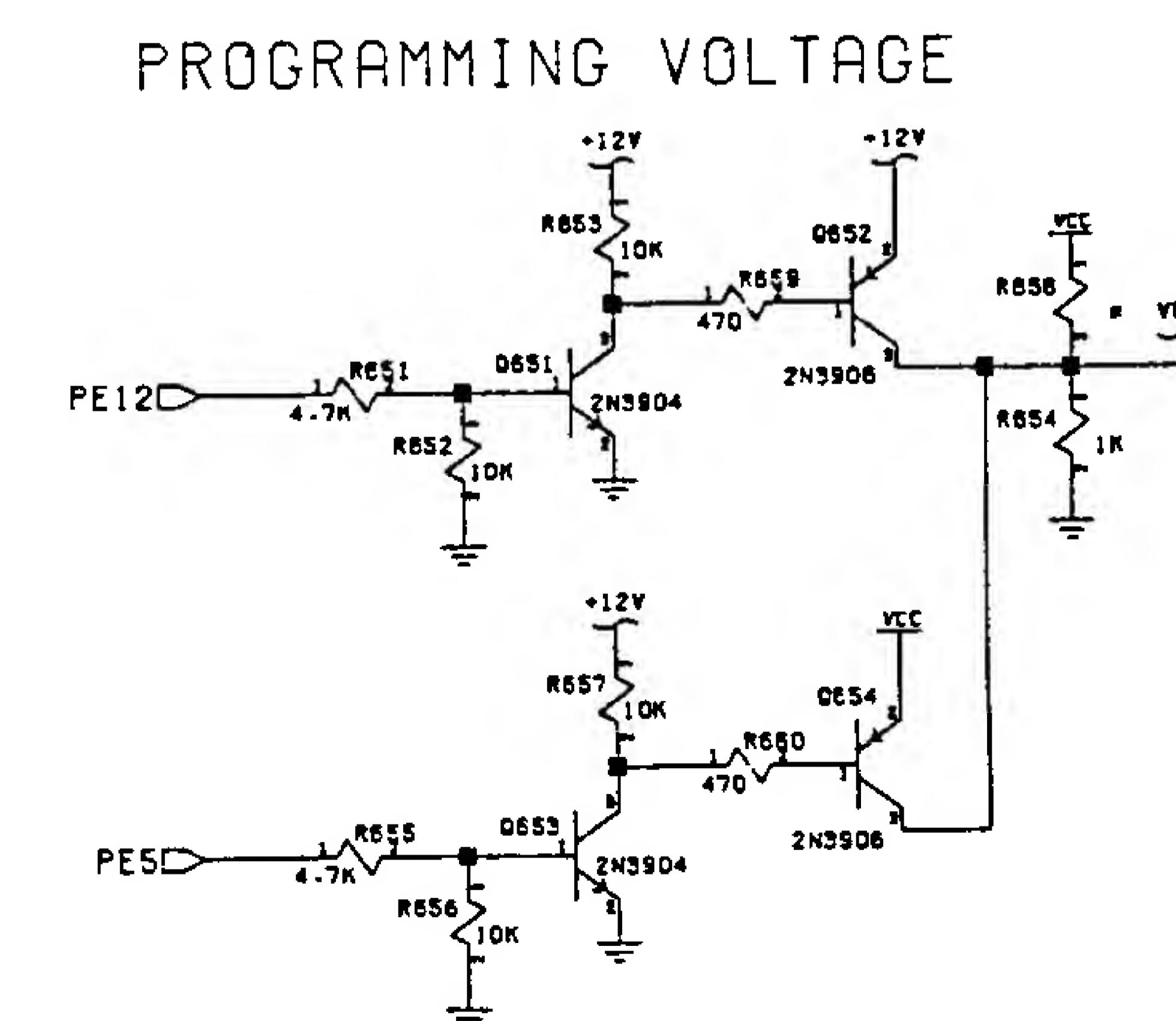
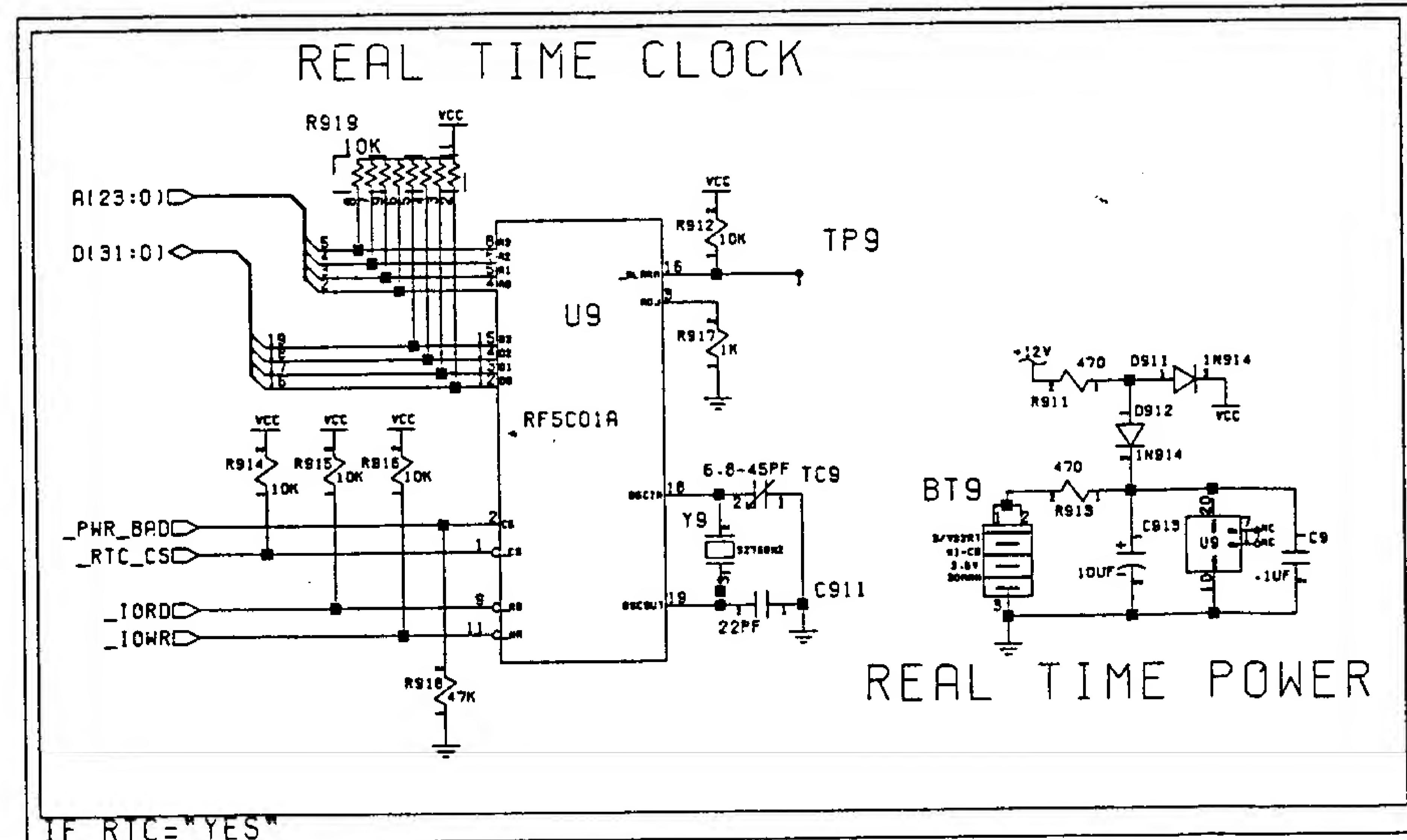
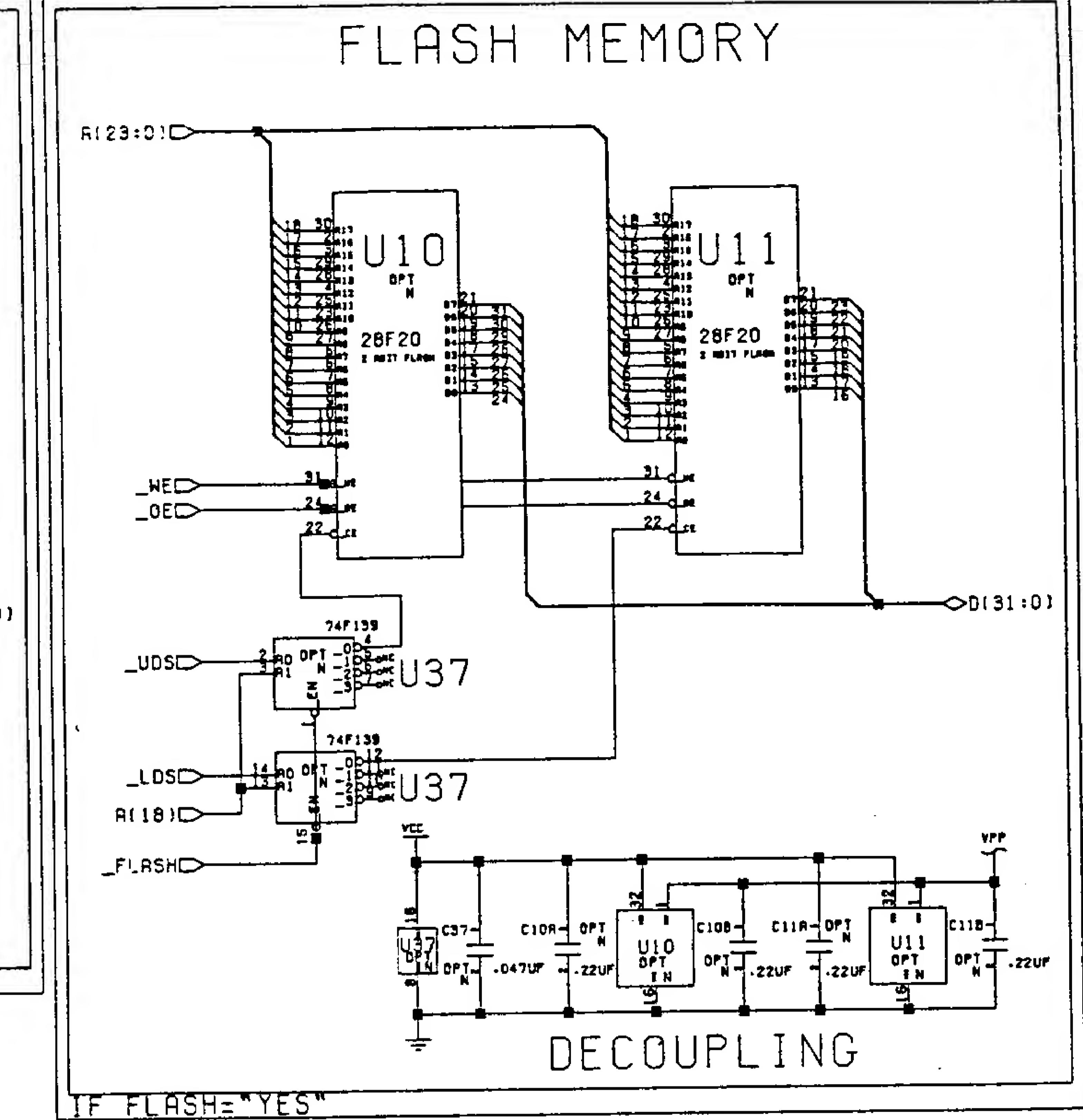
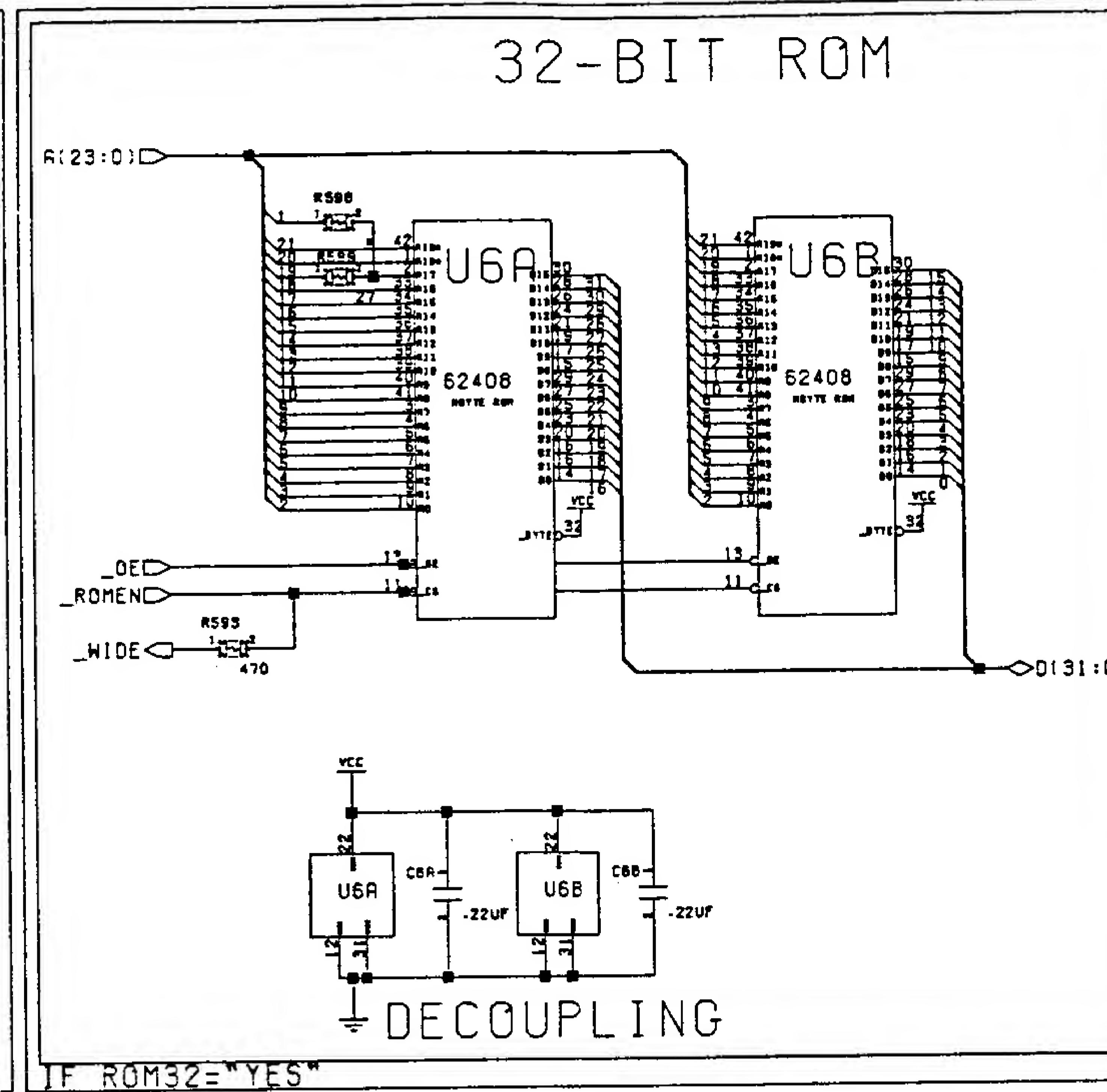
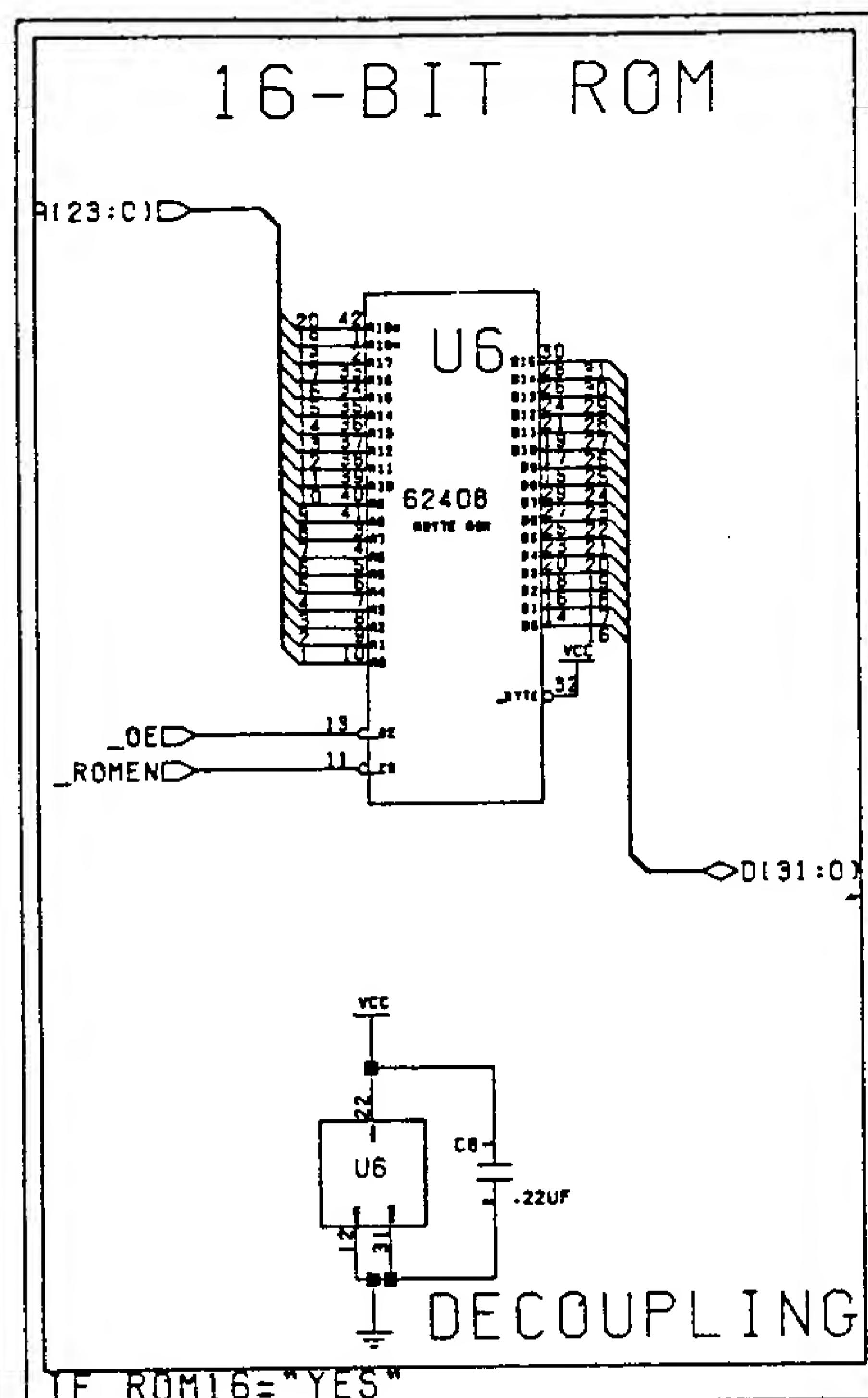
## SIGNAL GLOSSARY

SIGNAL	DESCRIPTION (AREA)	PAGES
25MHZ	25.63636 MHZ MASTER CLOCK	
7MHZ	7.15909 MHZ PROCESSOR CLOCK	
R232C:1	PARALLEL ADDRESS BUS (168000)	
R4K	DATA MEMORY REQUEST (PARALLEL PORT)	
RS	ADDRESS STROBE (168000)	
RUDIN	AUDIO INPUT (RS232 PORT)	
AUDOUT	AUDIO OUTPUT (RS232 JACK)	
BUFR	BUS ERROR (168000)	
BG	BUS GRANT (168000)	
BARCK	BUS REQUEST ACKNOWLEDGE (168000)	
BILSS	BUFFER SLOWDOWN (CHIPS)	
BLIZZ	CHIP MEMORY ACCESS (CHIPS)	
BR	BUS REQUEST (168000)	
BUSY	DEVICE BUSY (PBR91/EL1 PORT)	
CASL10	COLUMN ADDRESS STROBE (DRAM)	
CKK/LCKD	COLOR CLOCK / QUADRATURE (CHIPS)	
COAC	7.15909 MHZ QUADRATURE CLOCK (CHIPS)	
CHNG	MEDIA CHANGE (FLOPPY)	
CLKD/RW	READ/TIME CLOCK READ / WRITE (RTC)	
COMP	MONOCHROME COMPOSITE VIDEO (VIDEO)	
CSYNC	COMPOSITE SYNC (VIDEO)	
CTS	CLEAR TO SEND (RS232 PORT)	
DI15:0	PROCESSOR DATA BUS (168000)	
DIR	STEP DIRECTION (FLOPPY)	
DKRD	DISK READ DATA (FLOPPY)	
DKWR	DISK WRITE DATA (FLOPPY)	
DKRE	DISK WRITE ENABLE (FLOPPY)	
DKPL	DATA REQUEST LINE (CHIPS)	
DRAM16:0	DRAM ADDRESS BUS (DRAM)	
DRAM15:0	DRAM DATA BUS (DRAM)	
DRR	DATA SET READY (RS232 PORT)	
DTACK	DATA TRANSFER ACKNOWLEDGE (168000)	
DIR	DATA TERMINAL READY (RS232 PORT)	
E	PERIPHERAL ENABLE CLOCK (168000)	
EXTICK	EXPANSION PRESENT / RTC TICK	
FC12:0	FUNCTION CODE (168000)	
FIRE0/1	FIRE BUTTON 0/1 (JOYSTICKS)	
HLT	PROCESSOR HALT (168000)	
HSYNC	HORIZONTAL SYNC (VIDEO)	
INDEX	INDEX PULSE (F1 (FLOPPY))	
INT[2,3,6]	INTERRUPT REQUEST (CHIPS)	
IORESET	I/O RESET	
IPL[2:0]	INTERRUPT PRIORITY LEVEL (168000)	
KRCLOCK	KEYBOARD CLOCK (KEYBOARD)	
KRDATA	KEYBOARD DATA (KEYBOARD)	
KRRESET	KEYBOARD RESET (KEYBOARD)	
LDS/UOS	UPPER / LOWER DATA STROBES (168000)	
LED	POWER ON LED / BURST FILTER (DISPLAY)	
LEFT/RIGHT	LEFT/RIGHT AUDIO (AUDIO)	

## REVISION HISTORY

## KEY COMPONENTS

REF	CHIP	DESCRIPTION	PAGE
U1	68000	65000 PROCESSOR 16MHz	2
U2	8374	8116 (64K PROM)	5
U3	8364	PAULA	5
U4	4203	LISA (AAR DENISE)	7
U5	F023A	EAR GAYLE (CBM ASIC)	12, 8, 11
U5	ASST	ROM 512KX16 [50 NS]	10
U7-8	8520	16MHz VIE, 1 MHZ	11
U10-11	28104	FLASH MEMORY 128KX8	10
U12	CX9145500	VIDEO ENCODER	14
U13	68HC05	SH16A KEYBOARD MPU	19
U14	PS1510	LOW VOLTAGE SENSE IC	19
U15	F347	8IMOS OP-AMP	15
	TC454	8IMOS OP-AMP	14, 11
U16-17	8551	DRAM 256KX16, 80ns	13
U18-19	8551	DRAM 256KX16 OPTIONAL	13
U20	851777	BUDGIE (ASIC)	12
U28	1468	2 LINE DRIVER	17
U29	1469	2 LINE RECEIVER	17
U30	B101	TRIPLE 8-BIT VIDEO DAC	14
			1
X1	OSC	ITL 28.63536 MHz NTSC	12
	OSC	ITL 28.37512 MHz PAL	12
Y451	XTRL	4.33615MHz PAL BURST	14
Y521	XTRL	3MHz CERAMIC RESONATOR	15
			1
X2	ASST	PAL VIDEO MODULATOR	14
	ASST	NTSC VIDEO MODULATOR	14
			1



## OPTIONAL REAL-TIME CLOCK/CALENDAR

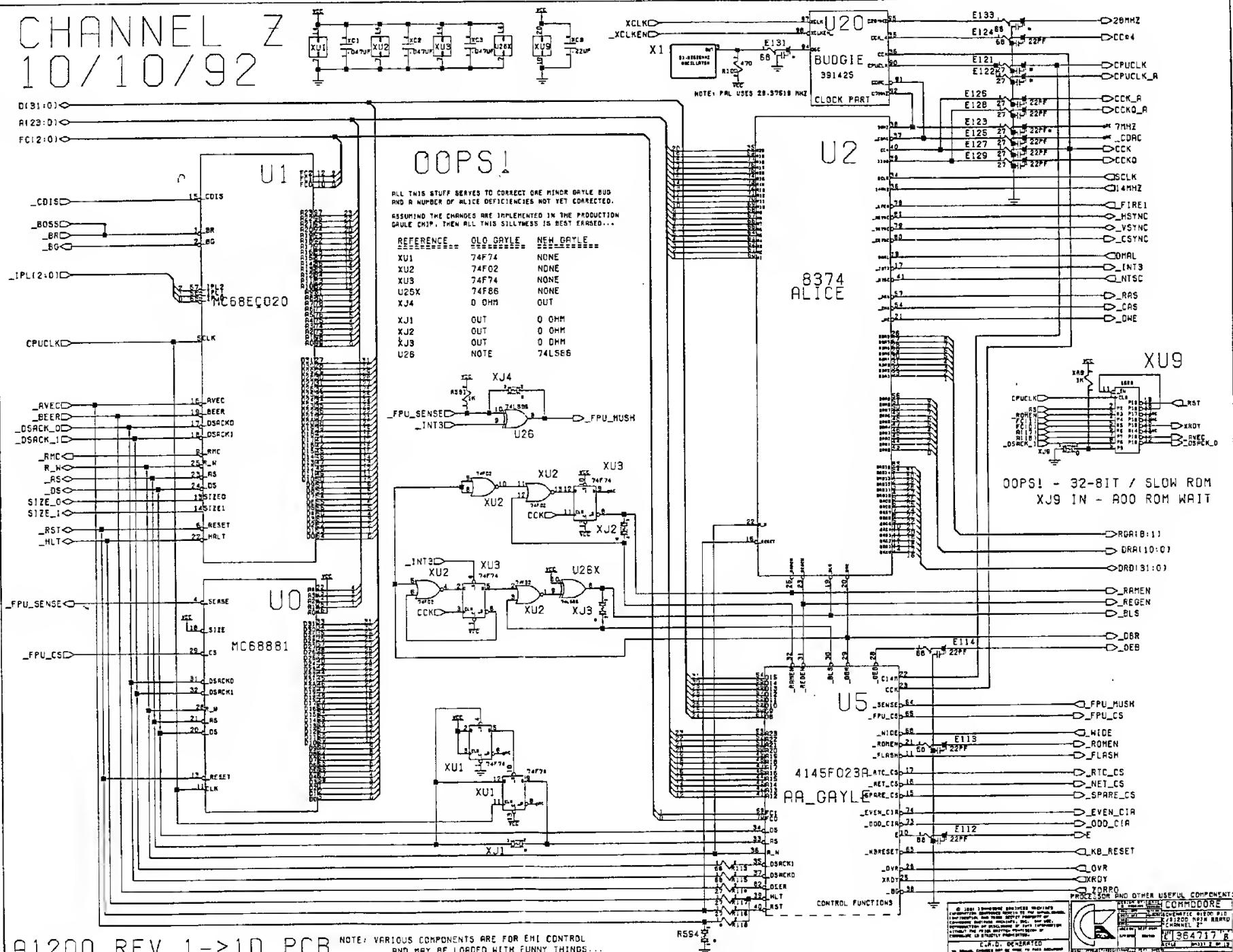
A1200 REV 1->1D PCB

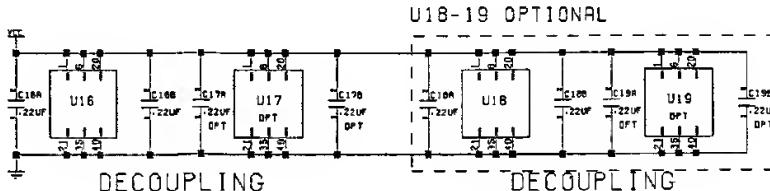
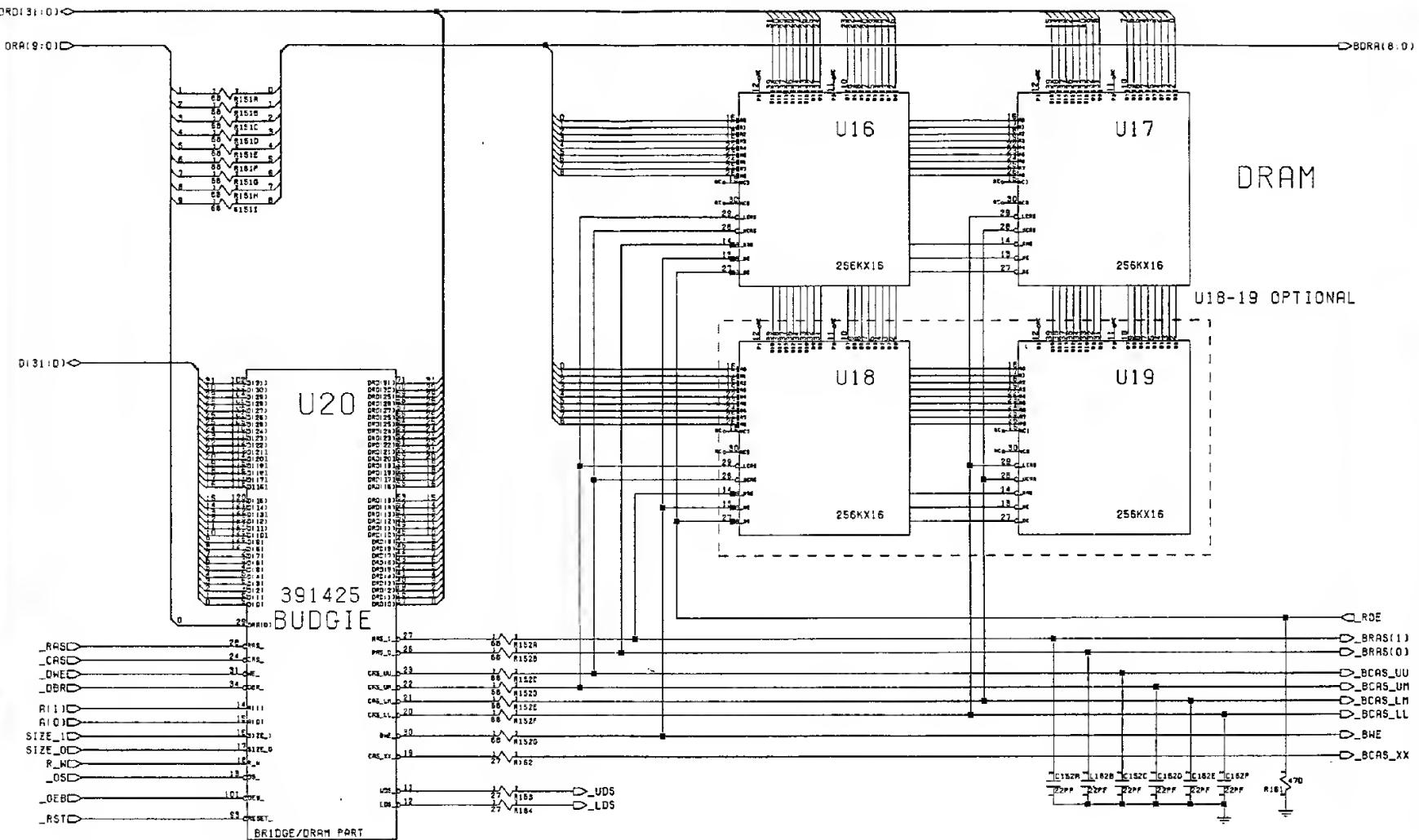
**Figure 5-5. AA-GAYLE**

**Figure 5-3. ALICE**



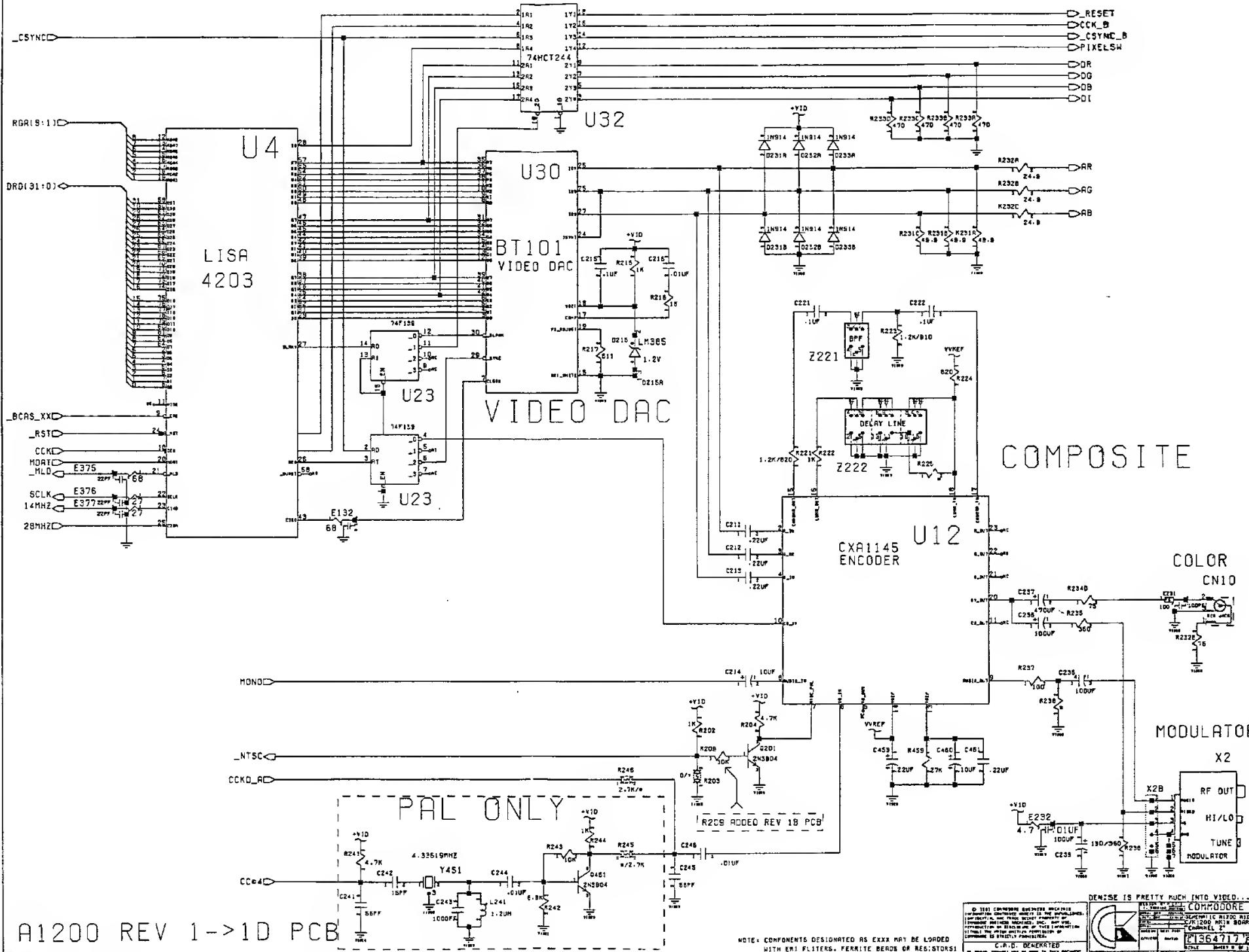
CHANNEL 7  
10/10/92






A1200 REV 1->1D PCB

MENTOR GRAPHICS VCR SERVER 7.8



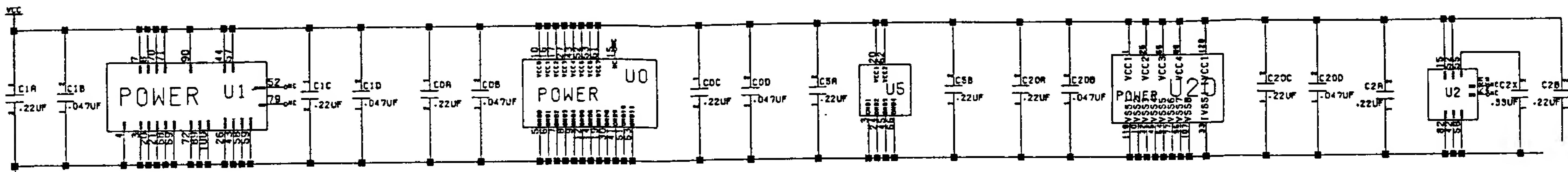
# MOUSE/JOYSTICK PORTS



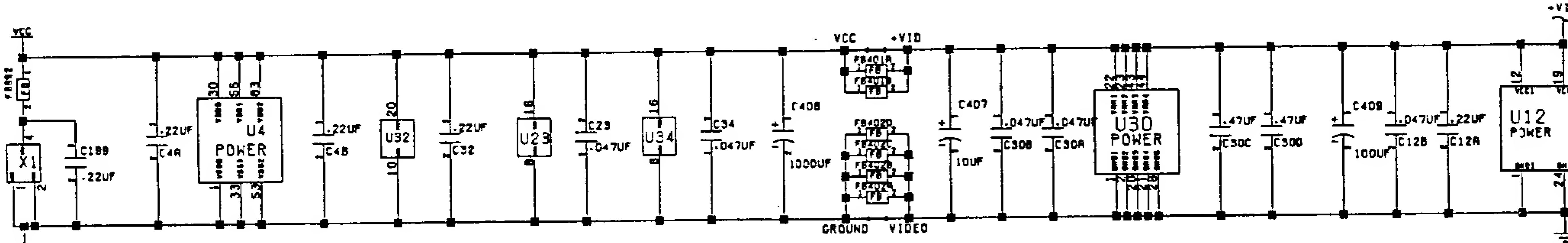
NOTE: LEO OFF, FILTERS BYPASSED

# AUDIO FILTERS

# GENERAL DECOUPLING

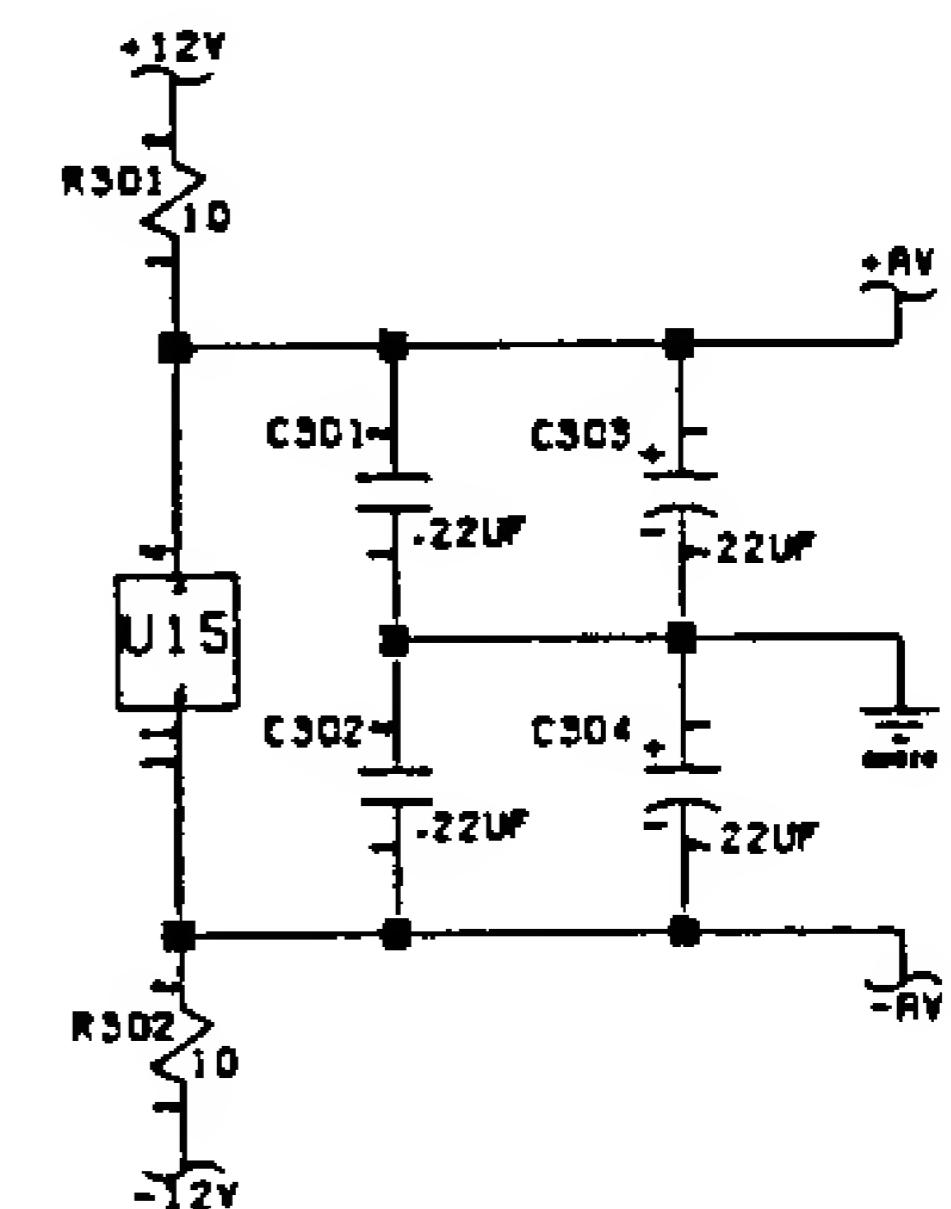


# VIDEO DECOUPLING

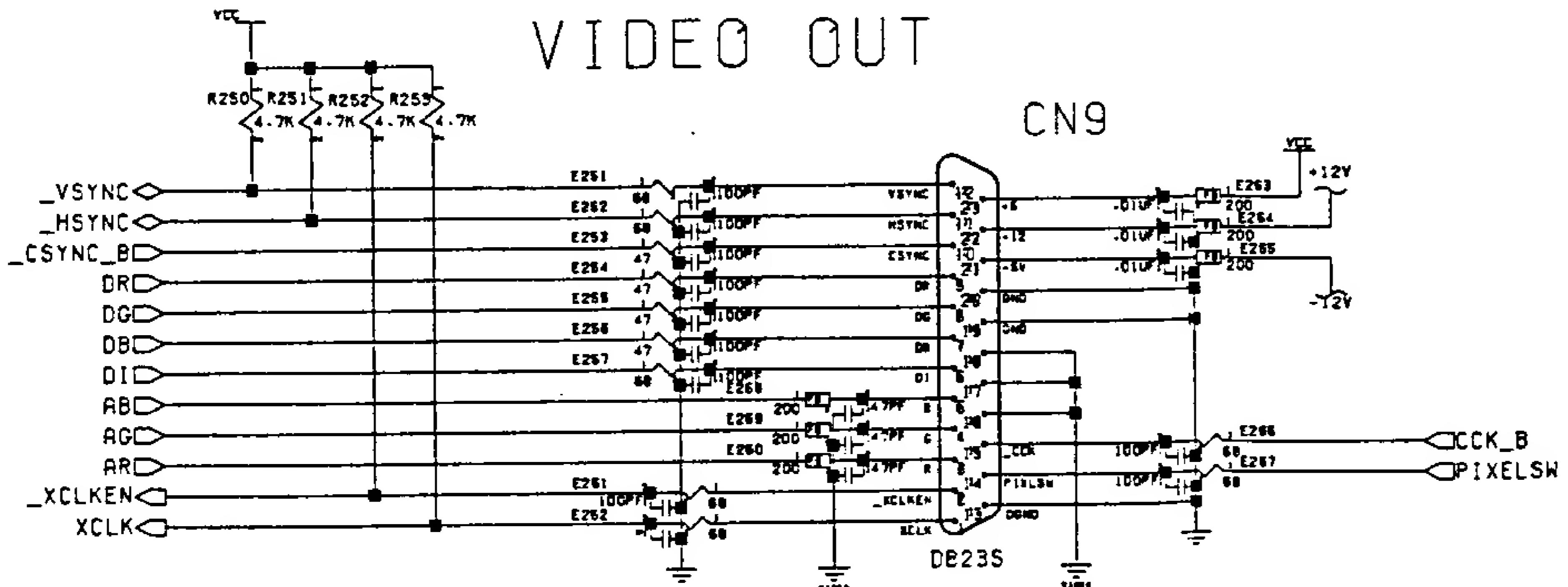


NOTE: AS OF REV 1C, LOGIC AND VIDEO GOUND AND POWER ARE  
THE SAME NET, BUT REROUTED DISCRETELY EXCEPT AT DAC1  
ALSO ADDED C30C AND C30D FOR OVERKILL DAC DECOUPLING.

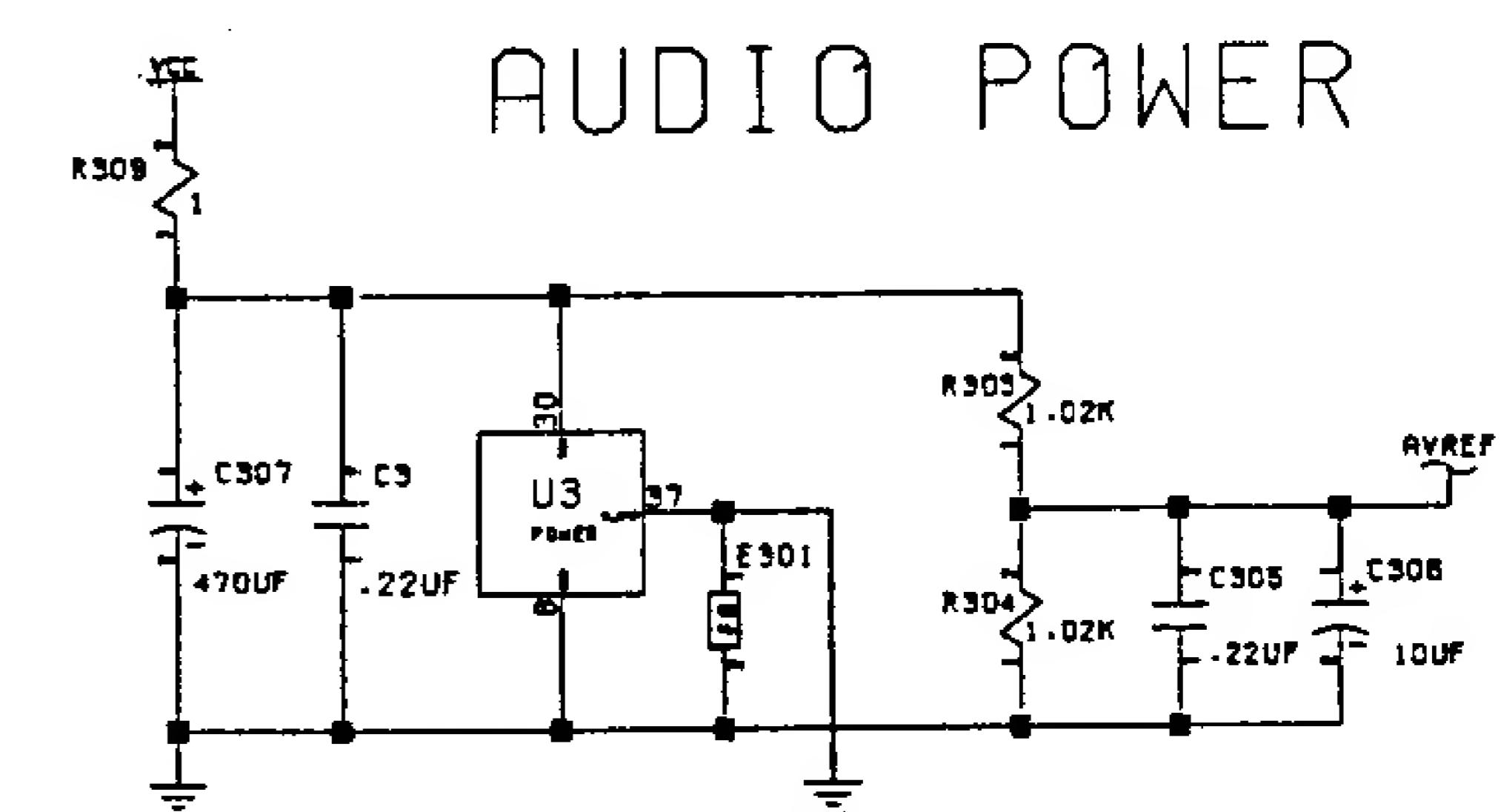
# AUDIO DECOUPLING



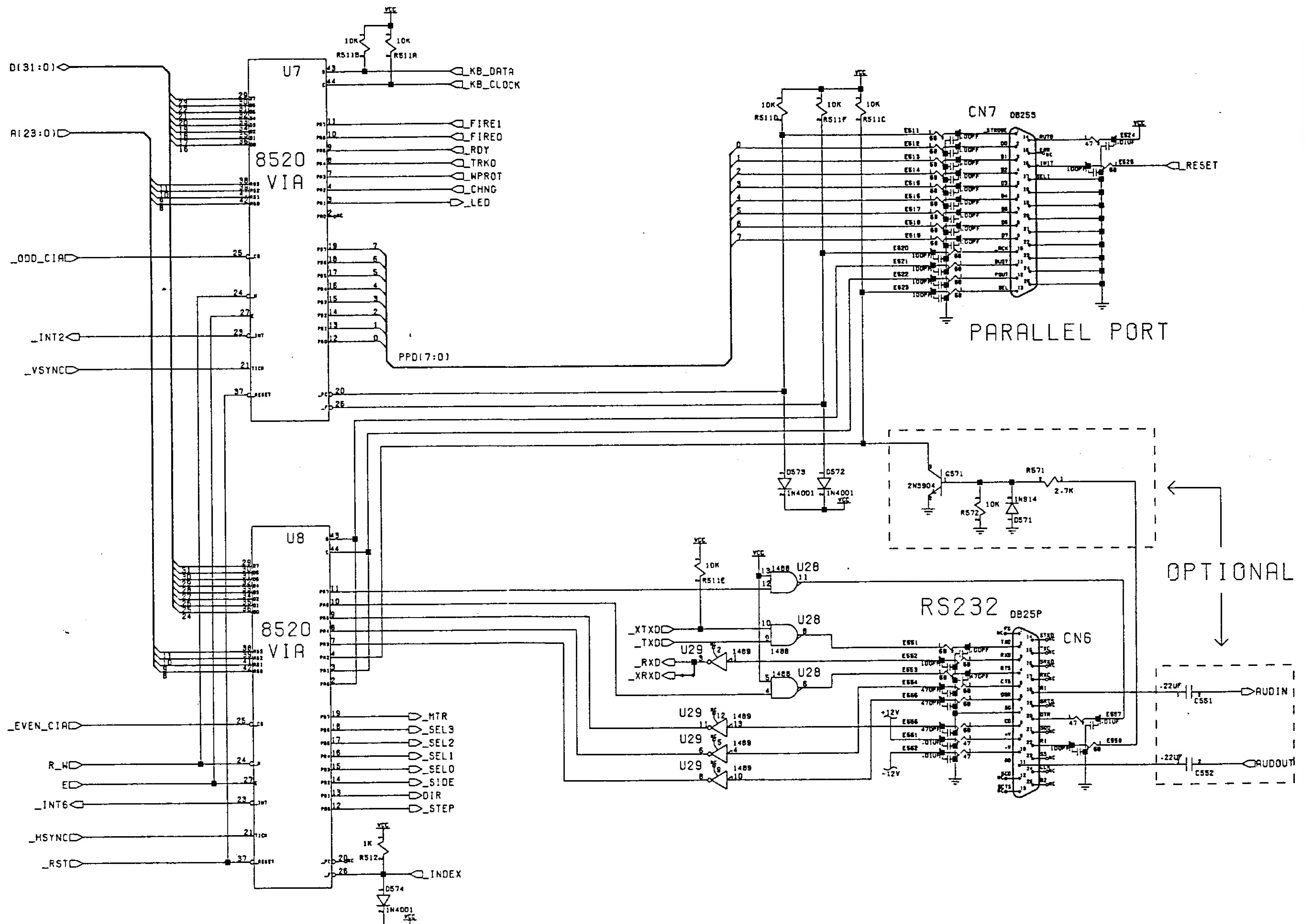
VIDEO OUT



# AUDIO POWER



NOTE: GROUND INTERCONNECTION NEAR AUDIO JACKS.



A1200 REV 1->1D PCB

SERIAL AND PARALLEL PORTS  
C 1981 COMMODORE BUSINESS MACHINES  
INFORMATION CONTAINED HEREIN IS THE PROPRIETARY  
COMMODORE BUSINESS MACHINES PROPERTY  
NOT TO BE COPIED OR DISCLOSED WITHOUT THE  
WRITTEN PERMISSION OF  
COMMODORE BUSINESS MACHINES.  
C.A.D. GENERATED  
NO UNLAWFUL CHANGES MAY BE MADE TO THIS DOCUMENT

SCHEMATIC A1200 REV 1->1D  
A1200 PCB BOARD  
C-1200 REV 1D  
CHANNEL 2  
C 1364717 8  
PAGE 1 OF 1  
SCALE 1:1  
DATE 1/24/81  
C 1364717 8  
PAGE 1 OF 1  
SCALE 1:1  
DATE 1/24/81